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**ON-SITE AIR BAG INVESTIGATION**

CASE NO. - 95-21  
FLEET - LEASED VEHICLE  
LOCATION - [REDACTED] WISCONSIN  
ACCIDENT DATE - [REDACTED] 1995

Submitted By:

[REDACTED]  
Senior Staff Associate  
and  
[REDACTED]  
Associate Scientist

[REDACTED] 1996

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Prepared for:

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National Center for Statistics and Analysis  
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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

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7. Author(s) [REDACTED]				8. Performing Organization Report No. TRC/IU 95-21, Task 0032	
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16. Abstract <p>This report covers an on-site investigation of an air bag deployment crash that involved a 1996 Dodge Grand Caravan LE, extended Minivan, and a 1989 Mercury Sable LS, four-door sedan. This crash is of special interest because the right front passenger in the case vehicle, a seven week-old child seated in a rear facing, infant child seat, was critically injured by the deploying right front air bag. The Grand Caravan was traveling north-northeast in the northbound lane of a two-lane, undivided, State roadway. The Sable was traveling west in the westbound lane of an intersecting, two-lane, undivided, County roadway. The Grand Caravan (case vehicle) braked and swerved to its right, heading northeastward, just prior to impact, but the front of the case vehicle impacted the left rear half (just behind the "B"-pillar) of the Sable (vehicle #2) causing the case vehicle's driver side and right-front passenger side supplemental restraints (air bags) to deploy. The case vehicle continued northeastward after impact. Vehicle #2 had rotated approximately 90 degrees counterclockwise when the left rear of the case vehicle sideslapped the left front of vehicle #2. The case vehicle continued northeastward after the sideslap and came to rest on the east shoulder heading northeast. Vehicle #2 continued rotating counterclockwise, approximately an additional 180 degrees, after the sideslap impact and came to rest straddling the north-south lanes of the State roadway heading north. The case vehicle's driver (56 year-old female) was restrained by her available, active, three-point, lap and shoulder belt and sustained, according to her interview, minor cervical and thoracic strains. The right front passenger in the case vehicle (7 week-old male) was seated in a Fisher-Price, rear-facing, convertible, infant seat secured by his available, active, three-point, lap and shoulder belt and sustained, according to his medical records, skull and critical brain injuries which included: bilateral, nondisplaced, skull fractures of the parietal bones; bilateral subdural hematomas; a right occipital white matter shearing (diffuse axonal) injury; an intraventricular hemorrhage in the occipital horn of his right lateral ventricle; subarachnoid hemorrhages over the superior parietal lobes, bilaterally, and right frontal region; and a Concussion.</p>					
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# TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. 95-21

FLEET - LEASED VEHICLE  
LOCATION - [REDACTED], WISCONSIN

## SUMMARY

This report concerns a motor vehicle crash involving an air bag equipped 1996 Dodge Grand Caravan LE, extended Minivan and a 1989 Mercury Sable LS, four-door sedan, occurring on [REDACTED] 1995 at 7:45 a.m., near [REDACTED], Wisconsin on a State road. This crash is of special interest because the right front passenger in the case vehicle, a seven week-old child seated in a rear facing, infant child seat, was critically injured by the deploying right front air bag.

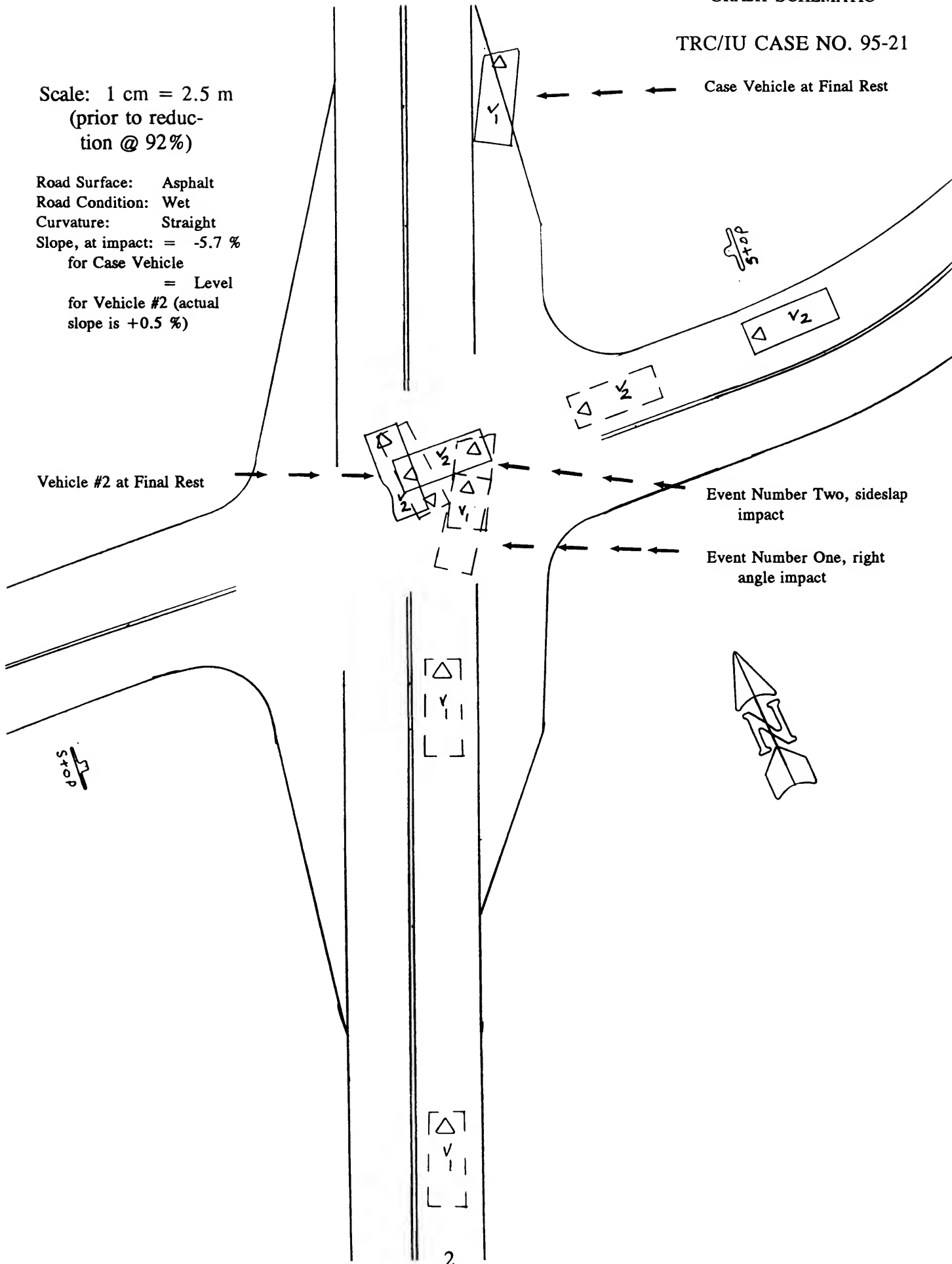
The Grand Caravan was traveling north-northeast in the northbound lane of a two-lane, undivided, State roadway when it impacted the Sable which was traveling west in the westbound lane of an intersecting, two-lane, undivided, County roadway. The Grand Caravan braked and swerved to its right, heading northeastward, just prior to impact and continued northeastward after impact coming to rest on the east shoulder heading northeast. The Sable rotated approximately 270 degrees counterclockwise after impact and came to rest straddling the north-south lanes of the State roadway heading north.

The front of the Grand Caravan impacted the left rear half (just behind the "B"-pillar) of the Sable. Subsequently, the left rear of the Grand Caravan sideslapped the left front of the Sable. The CDC for the Grand Caravan's frontal impact is unknown because the vehicle was under repair at the time of our inspection. The CDC for the Grand Caravan's sideslap impact is: 09-LBEW-1. CDCs for the Sable were determined to be: 10-LZEW-2 and 09-LFEE-1. No reconstruction program was used on this crash because the NASS, CDS, CRASH3PC protocol requires that actual vehicular crush measurements be obtained for both vehicles; however, this contractor's visually estimated Delta V is between 20 k.p.h. (12 m.p.h.) and 27 k.p.h. (17 m.p.h.).

The 1996 Dodge Grand Caravan was equipped with both driver and right-front passenger supplemental restraint systems (air bags) which deployed as a result of the frontal impact. The driver of the vehicle (56 year-old female) was also restrained by her available, active, three-point, lap and shoulder belt. She sustained, according to her interview, cervical and thoracic strains. The driver of the Grand Caravan was listed on the Police Accident Report as sustaining a "C" (possible) injury as a result of this crash. The right front passenger (7 week-old male) in the Grand Caravan was seated in a Fisher-Price, rear-facing, convertible, infant seat secured by his available, active, three-point, lap and shoulder belt. According to his medical records, he sustained: bilateral, nondisplaced, skull fractures of the parietal bones; bilateral subdural hematomas; a right occipital white matter shearing (diffuse axonal) injury; an intraventricular hemorrhage in the occipital horn of his right lateral ventricle; subarachnoid hemorrhages over the superior parietal lobes, bilaterally, and right frontal region; and a Concussion. He was listed on the Police Accident Report as sustaining a "C" (possible) injury. Both the driver (72 year-old male) and the right front passenger (45 year-old male) in the Sable sustained, according to their interviews, minor soft tissue injuries and were listed on the Police Accident Report as sustaining a "B" (nonincapacitating-evident) injury as a result of this crash.

## TRC/IU CASE NO. 95-21

Road Surface: Asphalt  
Road Condition: Wet  
Curvature: Straight  
Slope, at impact: = -5.7 %  
for Case Vehicle  
= Level  
for Vehicle #2 (actual  
slope is +0.5 %)



# TRC/IU ON-SITE AIR BAG INVESTIGATION

TRC/IU CASE NO. 95-21

FLEET - LEASED VEHICLE  
LOCATION - [REDACTED] WISCONSIN

## ACCIDENT DATA

Location/Street: State Highway  
City/Township: [REDACTED] Wisconsin  
Area/Type: Rural, undeveloped  
Accident Date/Time: [REDACTED] 1995, @ 7:45 a.m.  
Investigating Police Agency: [REDACTED] County Sheriff Department  
Accident Type: Minivan / Car - obtuse angle  
Occupant Injury Severity  
(air bag vehicle): Bilateral subdural hematomas and a right occipital lobe diffuse axonal injury (AIS-5)

## AMBIENT CONDITIONS

Light Conditions: Daylight  
Weather Condition: Precipitating  
Precipitation: Rain  
Road Surface: Wet

## ROADWAY

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Location:	State highway	County road
Number of Travel Lanes:	Three-lanes, undivided (i.e., two northbound lanes, one through and one right turn, and one southbound through lane)	Two-lanes, undivided
Width:	3.7 meters (12.1 feet) -- northbound through lane	3.9 meters (12.8 feet)
Surface Type:	Bituminous	Bituminous
Median:	None	None

## ROADWAY (CONTINUED)

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Shoulders:	Bituminous, not measured	Bituminous, 1.9 m (6.2 ft) on north, 3.4 m (11.2 ft) on south (continuation of right-turn lane from State road)
Vertical alignment:	Grade, negative to north (-5.7%)	Level, positive to west [+0.5% (i.e., < 2%)]
Horizontal alignment:	Straight	Straight in applicable segment (preceded by "S" curve)
Estimated Coefficient of Friction:	.60	.65
Traffic Density:	Moderate	No other traffic present

## TRAFFIC CONTROLS

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Signals:	None	Pole-mounted flashing red beacon, STOP sign mounted on pole
Signs:	Information sign (identifying name of County road)	Regulatory STOP sign
Markings:	Dashed yellow center line for northbound traffic, solid yellow center line for southbound traffic; solid white lane line separating through lane from right-turn lane; and solid white edge line on east edge of roadway	Double solid yellow center lines, solid white edge lines on north and south edges of roadway, and solid white stop bar
Speed Limit:	72 k.p.h. (45 m.p.h.) -- reduced because of declared construction zone	40 k.p.h. (25 m.p.h.) -- reduced because of declared construction zone

## VEHICLES

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Year:	1996	1989
Make:	Dodge	Mercury

## VEHICLES (CONTINUED)

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Model:	Grand Caravan LE	Sable LS
Body Type:	Extended minivan, 7 passengers	4-door sedan, 6 passengers
V.I.N.	1B4GP54R4TB-----	1MEBM53U0KG-----
Color:	Green	Brown
Mileage:	5,958 km (3,702 miles)	85,698 km (53,250 miles)
Engine:	3.3 liters, V6	3.0 liters, V6
Transmission:	4-speed automatic	4-speed automatic with overdrive
Steering:	Power-assisted, rack-and-pinion	Power-assisted, rack-and-pinion
Brakes:	Power-assisted, front disc rear drum with 4-wheel anti-lock	Power-assisted, front disc, rear drum
Padding:	Steering wheel and hub, sunvisors, dash, "A"-pillars, side door surfaces	Steering wheel, dash, sunvisors, A"-pillars, side door surfaces
Active Restraints:	3-point, manual, lap and shoulder belts in front, middle, and rear outboard seating positions; lap belt only at rear center position	3-point, manual, lap and shoulder belts in front and rear outboard seating positions; lap belt only at front and rear center positions
Passive Restraints:	Factory installed driver and right front passenger supplemental restraint systems (air bags)	None
Defects:	None	None
Fleet:	Leased vehicle	Private vehicle
Tow status:	Towed due to damage	Towed due to damage

## VEHICLE DAMAGE

EXTERIORCase VehicleVehicle #2Deployment Impact

Event number:	First	First
Object Struck:	Vehicle #2	Case Vehicle
Damage location		
Damaged Plane:	Front	Left
Vertical Location		
On Plane:	Bumper	Above sill
Direct Begins:	Left bumper corner	98 cm ( 38.6 in) forward of left rear axle
Length Direct:	Unknown, bumper removed for repair	169 cm ( 66.5 in)
Field L:	Undeformed end width, unknown	188 cm ( 74.0 in)
C <sub>1</sub> :	Unknown, being repaired	0 cm ( 0.0 in)
C <sub>2</sub> :	Unknown, being repaired	5 cm ( 2.0 in)
C <sub>3</sub> :	Unknown, being repaired	11 cm ( 4.3 in)
C <sub>4</sub> :	Unknown, being repaired	15 cm ( 5.9 in)
C <sub>5</sub> :	Unknown, being repaired	16 cm ( 6.3 in)
C <sub>6</sub> :	Unknown, being repaired	0 cm ( 0.0 in)
D:	Unknown, being repaired	-121 cm ( -47.6 in)
Maximum Crush:	Unknown, being repaired	22 cm ( 8.7 in)
Location:	Unknown	Between C <sub>3</sub> and C <sub>4</sub> , 60 cm (23.6 in) forward of left rear axle
CDC:	UNKNOWN	10-LZEW-2
Damaged Components:	Bumper, grille, hood, left front headlight assembly and fender	Left rear door and window, left quarter panel

Nondeployment Impact

Event number:	Second	Second
Object Struck:	Vehicle #2	Case Vehicle
Damage location		
Damaged Plane:	Left	Left
Vertical Location		
On Plane:	Above sill	Bumper
Direct Begins:	52 cm ( 20.5 in) forward of left rear axle	Left front bumper corner
Length Direct:	15 cm ( 5.9 in)	11 cm ( 4.3 in)
Field L:	40 cm ( 15.7 in)	10 cm ( 3.9 in)



## VEHICLE DAMAGE (CONTINUED)

**EXTERIOR** (Continued)**Case Vehicle****Vehicle #2****Nondeployment Impact** (Continued)

C <sub>1</sub> :	Not measured	Not measured
C <sub>2</sub> :	Not measured	Not measured
C <sub>3</sub> :	Not measured	Not measured
C <sub>4</sub> :	Not measured	Not measured
C <sub>5</sub> :	Not measured	Not measured
C <sub>6</sub> :	Not measured	Not measured
D:	-144 cm ( -56.7 in)	+121 cm (+47.6 in)
Maximum Crush:	5 cm ( 2.0 in)	2 cm ( 0.8 in)
Location:	Not determined	Not determined
CDC:	09-LBEW-1	09-LFEE-1
Damaged Components:	Left rear door and left quarter panel	Bumper

**INTERIOR**

Damaged Components:	Driver and right front passenger air bag modules, rear view mirror, and windshield	None visible
Other Evidence of Occupant Contact:	Smudge on right underneath side of steering column, make-up on driver's air bag	None visible
Manual Restraint System Failures:	None	None
Seat Performance Failures:	None	None

**REPAIR**

Cost Estimate:	\$10,294.51	Unknown
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## VEHICLE VELOCITY ESTIMATES

**Highest Delta "V"****Case Vehicle****Vehicle #2**

Reconstruction Program:	Not applicable	Not applicable
Program Algorithm:	Not applicable	Not applicable

VEHICLE VELOCITY ESTIMATES<sup>1</sup> (CONTINUED)

<u>Highest Delta "V" (Continued)</u>	<u>Case Vehicle</u>	<u>Vehicle #2</u>
Travel Speed <sup>1</sup> :	56 k.p.h. ( 35 m.p.h.)	8 k.p.h. ( 5 m.p.h.)
Total Delta "V":	Unknown	Unknown
Longitudinal Delta "V":	Unknown	Unknown
Lateral Delta "V":	Unknown	Unknown

## COLLISION SEQUENCE

**PRE-CRASH:** According to the Police Accident Report and the case vehicle's driver, the case vehicle (Grand Caravan) was traveling north-northeast in the northbound lane of a two-lane, undivided, State roadway and was attempting to continue in its northward direction of travel. According to the Police Accident Report and our interviews with both drivers, vehicle #2 (Sable) was traveling west in the west-bound lane of an intersecting, two-lane, undivided, County roadway and was starting to cross through the intersection after waiting for a southbound noncontact vehicle to go by. According to the driver of the case vehicle, she braked and steered right. According to the Police Accident Report and the damage to both vehicles, the case vehicle swerved to the right heading northeastward just prior to impact. According to the driver of vehicle #2, he never saw the case vehicle and made no pre-crash avoidance maneuvers. Vehicle #2 continued straight ahead in its westward direction of travel just prior to impact. The crash occurred in the four-leg intersection of the two roadways.

**CRASH:** According to the Police Accident Report, the driver of the case vehicle, and the damage to both vehicles, the front of the case vehicle impacted the left rear half (just behind the "B"-pillar) of vehicle #2 causing both the driver and right-front passenger side supplemental restraint systems (air bags) to deploy. According to the driver of the case vehicle and the damage to both vehicles, the case vehicle continued northeastward after impact, and vehicle #2 rotated approximately 90 degrees counterclockwise. According to the damage to both vehicles, the left rear of the case vehicle sideslapped the left front of vehicle #2. According to the Police Accident Report and the case vehicle's driver, the case vehicle continued northeastward after the sideslap and came to rest on the east shoulder heading northeast. According to the Police Accident Report and vehicle #2's driver, vehicle #2 continued rotating counterclockwise, approximately an additional 180 degrees, after the sideslap impact and came to rest straddling the north-south lanes of the State roadway heading north.

1

Estimated travel speed at impact is based on driver interviews and observed vehicular crush; see Vector Analysis Iterations. These iterations support the assigned PDOFs.

## COLLISION SEQUENCE (CONTINUED)

## POST-CRASH:

**Occupants:** According to the Police Accident Report and Incident Report, the driver of the case vehicle remained inside the vehicle at final rest. She was conscious and was able without assistance to exit the case vehicle. The right front passenger remained seated inside the vehicle at final rest strapped in his rear-facing infant seat. According to the case vehicle's driver and his medical records, he was conscious, crying out post-impact, and was unable because of his age to exit the case vehicle. The driver of the case vehicle was restrained by her available, active, three-point, lap and shoulder belt. The right front passenger was seated in a rear-facing infant seat secured by his available, active, three-point, lap and shoulder belt. According to the Police Accident Report and the driver of vehicle #2, both the driver and the right front passenger in vehicle #2 remained inside their vehicle at final rest, were conscious, were able to exit vehicle #2 with some assistance, and were using their available, active, three-point, lap and shoulder belts.

**Police:** The investigating police agency was notified of the accident within two minutes and arrived on-scene within five minutes. Traffic control procedures were established and emergency medical and towing services were called to assist.

**Rescue:** The driver of the case vehicle was transported by ambulance to a medical facility where she was treated and released. The case vehicle's right front passenger was transported by ambulance to a medical facility where he was treated and transferred to another hospital where he was hospitalized, initially in the Pediatric Intensive Care Unit. According to the interview with the case vehicle driver, she sustained cervical and thoracic strains. According to his medical records, the right front infant sustained: bilateral, nondisplaced, skull fractures of the parietal bones; bilateral subdural hematomas; a right occipital white matter shearing (diffuse axonal) injury; an intraventricular hemorrhage in the occipital horn of his right lateral ventricle; subarachnoid hemorrhages over the superior parietal lobes, bilaterally, and right frontal region; and a Concussion. According to the Police Accident Report and the interview with the driver of vehicle #2, both the driver and right front passenger were transported by ambulance to a medical facility where they were treated and released. According to their interviews, they sustained minor soft tissue injuries.

**Removal:** Following the police investigation, the case vehicle and vehicle #2 were towed from the scene.

## HUMAN FACTORS/OCCUPANT DATA

	<u>Case Vehicle</u>	<u>Vehicle #2</u>
<b>DRIVERS:</b>	56 year-old female	72 year-old male
Height:	175 cm (69 in)	163 cm (64 in)
Weight:	61 kg (135 lbs)	79 kg (175 lbs)
Occupation:	Proprietor	Retired
Active Restraint System/Usage:	3-point lap and shoulder/Used	3-point lap and shoulder/Used
Usage Source:	Vehicle inspection, Interviewee, and Police Accident Report	Vehicle inspection, Interviewee, and Police Accident Report
Passive Restraint System/Usage:	Factory installed air bag/air bag deployed	Not equipped
Usage Source:	Vehicle inspection, Interviewee, and Police Accident Report	Not applicable
Eye glasses/contacts:	None	None
Vehicle Familiarity:	Three weeks, less than 1,600 km (1,000 mi) total	Six years, approximately 96,600 km (60,000 mi) total
Route Familiarity:	Twice monthly	Infrequently
Trip Plan:	Home to personal business	Home to social/recreational
Manner of Leaving Scene:	Ambulance per Police Incident Report	Ambulance per Police Incident Report
Type of Medical Treatment:	Treated and released	Treated and released
<b>RIGHT FRONT PASSENGER:</b>	7 week-old male	45 year-old male
Height:	56 cm (22 in)	170 cm (67 in)
Weight:	5 kg (10 lbs)	64 kg (140 lbs)
Active Restraint System/Usage:	3-point lap and shoulder/Used with Fisher-Price infant seat	3-point lap and shoulder/Used

## HUMAN FACTORS/OCCUPANT DATA (CONTINUED)

**RIGHT FRONT PASSENGER:**  
(Continued)**Case Vehicle****Vehicle #2**

Usage Source:

Vehicle inspection, Interviewee, Police Accident Report, Medical Records

Vehicle inspection, Interviewee, Police Accident Report

Passive Restraint System/Usage:

Factory installed air bag/air bag deployed

Not equipped

Usage Source:

Vehicle inspection, Interviewee, Police Accident Report

Not applicable

Eye glasses/contacts:

None

Eyeglasses

Manner of Leaving Scene:

Ambulance per Police Incident Report

Ambulance per Police Incident Report

Type of Medical Treatment:

Hospitalized

Treated and released

## CASE VEHICLE DRIVER INJURIES

<b><u>Description of Injury</u></b>	<b><u>A.I.S.</u></b>	<b><u>Source of Data</u></b>	<b><u>Injury Mechanism</u></b>	<b><u>Certainty</u></b>
Cervical strain	640278.1,6	7	Driver's side air bag	{Probable}
Thoracic back strain	640478.1,7	7	Driver's side air bag	{Possible}

CASE VEHICLE PASSENGER INJURIES<sup>2</sup>

<b><u>Description of Injury</u></b>	<b><u>A.I.S.</u></b>	<b><u>Source of Data</u></b>	<b><u>Injury Mechanism</u></b>	<b><u>Certainty</u></b>
Subdural hematoma, bilaterally, left underlies parietal skull fracture <sup>2</sup>	140654.5,3	2	Right front air bag through infant child seat	{Certain}

<sup>2</sup> Subdural hematoma and/or hemorrhage was noted along the left cerebral convexity extending posteriorly along the falx and along the tentorium (supratentorial) and right posterior falx.

**Falx (falks), f. of cerebrum** -- the sickle-shaped fold of dura mater that extends downward in the longitudinal cerebral fissure and separates the two cerebral hemispheres.

**Tentorium (ten-to/re-um)** -- an anatomical part resembling a tent or a covering. **t. of cerebellum** -- the process of dura mater that supports the occipital lobes and covers the cerebellum. Its internal border is free and bounds the tentorial notch; its external border is attached to the skull and encloses the transverse sinus behind.

CASE VEHICLE PASSENGER INJURIES<sup>3,4,5</sup> (CONTINUED)

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
White matter shearing (diffuse axonal) injury right occipital lobe	140628.5,1	2	Right front air bag through infant child seat	{Certain}
Intraventricular hemorrhage in occipital horn of right lateral ventricle	140678.4,1	2	Right front air bag through infant child seat	{Certain}
Subarachnoid <sup>3</sup> hemorrhage, minimal, right superior parietal lobe and frontal	140684.3,1	2	Right front air bag through infant child seat	{Certain}
Subarachnoid <sup>3</sup> hemorrhage, minimal, left superior parietal lobe	140684.3,2	2	Right front air bag through infant child seat	{Certain}
Concussion, awake on admission with neurologic deficit <sup>4</sup>	160404.2,0	2	Right front air bag through infant child seat	{Certain}
Fracture <sup>5</sup> , stellate, left parietal skull, nondisplaced	150402.2,2	2	Right front air bag through infant child seat	{Certain}
Fracture <sup>5</sup> , nondisplaced, right superior parietal skull	150402.2,1	2	Right front air bag through infant child seat	{Certain}

<sup>3</sup> The medical records conflict between the initial treatment facility and the facility to which the child was transferred and hospitalized. The initial treatment facility notes areas of high attenuation (i.e., hemorrhage) in the extra-axial space adjacent to Falx overlying the left frontal lobe and overlying the superior, posterior, right, parietal lobe. In addition, high attenuation is present in the right frontal cortex. The "transferred to" facility notes subarachnoid hemorrhage in essentially the same areas while ruling out the presence of any intraparenchymal hemorrhage. Also noted was subarachnoid hemorrhage within the interpeduncular cisterns.

*cisterna (sis-ter'nah)* -- a cistern: a closed space serving as a reservoir for lymph or other body fluid, especially one of the enlarged subarachnoid spaces containing cerebrospinal fluid. *c. interpeduncularis* -- interpeduncular cistern; a dilation of the subarachnoid space between the cerebral peduncles; called also *basal cistern*.

*pedunculus (pe-dung'ku-lus)* -- a stemlike part; a general term for collections of nerve fibers coursing between different areas in the central nervous system; called also *peduncle*.

<sup>4</sup> Neurologic deficits were: right lateral conjugate gaze (i.e., deviation of both eyes to the same side) and a seizure in the Pediatric I.C.U. of the hospital to which the child was transferred.

<sup>5</sup> Conflicting evidence exists regarding the severity of the skull fractures. The initial treatment facility described the left parietal fracture as beginning in the left temporal bone and extending upwards into the parietal convexity. The initial treatment facility described the right parietal skull fracture as mildly comminuted with a small fracture fragment displaced approximately two millimeters from the inner skull table. However, all of the subsequent medical records down-played the severity and referred to these two fractures as involving the parietal bones only and nondisplaced. The synthesis of the information is that these fractures were not that severe, and therefore, the encoding reflects this synthesis.

## VEHICLE #2 DRIVER INJURIES

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Laceration mid-forehead	290600.1,7	7	Steering wheel rim	{Possible}
Fractured tooth	251404.1,8	7	Steering wheel hub or spokes	{Possible}
Contusion left upper arm	790402.1,2	7	Sill of Driver's door	{Certain}
Abrasion right knee	890202.1,1	7	Underside of steering column	{Certain}
Contusion right knee	890402.1,1	7	Underside of steering column	{Certain}
Contusion right ankle	890402.1,1	7	Foot controls	{Probable}

VEHICLE #2 PASSENGER INJURIES<sup>6</sup>

<u>Description of Injury</u>	<u>A.I.S.</u>	<u>Source of Data</u>	<u>Injury Mechanism</u>	<u>Certainty</u>
Contusion bridge of nose <sup>6</sup>	290402.1,4	7	Other occupant (i.e., Driver)	{Possible}
Laceration bridge of nose <sup>6</sup>	290600.1,4	7	Other occupant (i.e., Driver)	{Possible}

## CASE VEHICLE DRIVER KINEMATICS

According to the case vehicle's driver, immediately prior to the crash, she was seated upright with her back against the seatback, her right foot on the brake pedal, left on the toe pan, and both hands on the steering wheel. The vehicle inspection was unable to determine the exact location of the driver's seat track position since it had been displaced during the removal of the driver's air bag. According to the driver, her seat track was in the middle to rear most position. An inspection of the driver's air bag showed that there was no tether or vent ports and the top and bottom cover flaps (facia plates) showed no evidence of contact. The case vehicle's driver and Police Accident Report both indicated that she was wearing her available, active, three-point, lap and shoulder belt immediately prior to impact. This investigator was unable to determine definite usage during the vehicle inspection.

Immediately prior to the collision, the case vehicle was traveling downhill (-5.7% grade) in the north-northeastbound lane on a two-lane, State highway. According to the case vehicle's driver she braked and steered right, approximately 10 degrees (to a northeastward heading), in an attempt to avoid the crash. In response to her maneuvers, the driver most likely moved slightly forward and to her left, if at all.

<sup>6</sup> These injuries occurred when the eyeglasses this occupant was wearing broke when the occupant's face came in contact with the injury mechanism.

**CASE VEHICLE DRIVER KINEMATICS (CONTINUED)**

At impact the case vehicle's driver does not recall how she moved inside the vehicle. According to the principles of occupant kinematics (i.e., PDOF was approximately +10 degrees), combined with the right steering maneuver, the driver most likely moved forward and back to her right. When the air bag deployed, her face contacted the air bag leaving the make-up and lipstick transfer. The driver's forward movement was most likely minimal since the decelerative forces at impact caused her three-point belts to lock-up and minimize her facial injuries. According to the vehicle inspection, her forward movement most likely caused her right knee to contact the right side of the steering column; although, she claims she did not sustain any injury from this contact. The deploying air bag most likely pushed her head backwards while the combination of her belts and air bag decelerated her torso. This differential deceleration most likely caused the cervical and thoracic strains that she reported in her interview.

After the initial impact with vehicle #2, the left rear of the case vehicle sideslapped the left front corner of vehicle #2, most likely causing the case vehicle's driver to shift to her left slightly then rebounded back to her right. Her movement during this second event was most likely very minimal since, according to the case vehicle driver, she was unaware of its occurrence.

According to the case vehicle driver, she steered slightly back toward the left because she was concerned about her vehicle going off the road and rolling over. At final rest the driver was most likely close to her original seating position prior to the crash.

**CASE VEHICLE PASSENGER KINEMATICS**

According to the case vehicle's driver, just prior to the crash, the front right occupant (i.e., her seven week-old grandson) was strapped in his rear-facing, infant, child seat. According to the Police Accident Report and the driver, the seat was secured to the vehicle by the active, three-point, lap and shoulder belt. The vehicle inspection showed that the seat track was in the rear most position with the seatback in the upright position. Given the child's age and how securely he was held in his restraints, he most likely made no appreciable pre-impact movements.

At impact the infant boy most likely slid forward some slight distance but was held in place by the infant seat's harness and shield, which according to the driver were worn properly, as well as vehicle's safety belts. The deploying air bag impacted the back of the infant seat causing the child seat to crack and a piece of its right rear corner to brake off. An inspection of the infant child seat revealed a large crack along with a broken-off piece of plastic approximately 15 centimeters (6 inches) in length broken off the right rear corner near the right shoulder of the infant who was laying in place, facing rearward. According to the driver (grandmother), during the crash the infant cried out most likely when the deploying air bag struck the child's infant seat from behind. It should be noted that the distance from the back top portion of the infant, child seat to the front of the air bag module was 29 centimeters (11.4 inches).

The interior inspection also revealed a scratch to the inside of the windshield which most likely was caused when the broken plastic piece from the child seat's struck it. In addition, a powdery scuff on the lower right, backside corner of the rearview mirror was found which this investigator believes most likely was caused by the deploying right front air bag. An inspection of the right front air bag showed no contacts other than a scuff to the lower half of the bag which most likely occurred during deployment from contacting the bottom air bag cover flap (facia plate).



## CASE VEHICLE PASSENGER KINEMATICS (CONTINUED)

The right front air bag does not have any vent ports but was equipped with a bottom biased tether<sup>7</sup>.

The momentum from the initial crash followed by the subsequent sideslap most likely caused the broken piece of plastic to contact the windshield. The windshield scratch (contact) appears to have a plastic compound base to it. His movement during the sideslap event was most likely very minimal because of the sideslapping nature of the impact.

At final rest the driver indicated that her grandson was in his child seat whimpering not crying hysterically.

AIR BAG SYSTEM<sup>7</sup>

	<u>DRIVER AIR BAG</u>	<u>PASSENGER AIR BAG</u>
Air Bag Diameter (seam-to-seam, deflated):	65 cm (25.6 in) laterally, 57 cm (22.4 in) vertically	46 cm (18.1 in) laterally, 71 cm (28.0 in) vertically
Number of Air Bag Tethers	Two	One, bottom biased
Number of Vent Holes:	None <sup>8</sup>	None <sup>8</sup>
Vent Hole Diameter:	Not applicable	Not applicable
Vent Hole Clock Positions:	Not applicable	Not applicable
Generant Residue:	No unusual amount found	No unusual amount found

<sup>7</sup> According to [REDACTED] who is an investigator with the NTSB, the right front air bags in the Chrysler, Dodge, and Plymouth minivan's have bottom bias tethers. A Chrysler technician explained to [REDACTED] that the bottom bias tether limits the bottom half of the air bag from fully deploying. This accelerates the deploying upper half of the air bag into the head and chest area of the occupant. The tether is in the form of a wide band of fabric that extends from one side seam to the other. The bottom portion of the air bag has the feel of being a double layer.

<sup>8</sup> The case vehicle's air bags vent back into the steering column and dash, respectively.

**ACCIDENT COLLISION MEASUREMENT TABLE**

## ACCIDENT COLLISION MEASUREMENT TABLE

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

Primary Sampling Unit Number 10

Case Number—Stratum 9521

### ACCIDENT COLLISION DIAGRAM

**Document the physical plant:**

- all road/roadway delineation (e.g., curbs/edge lines, lane markings, median markings, pavement markings, parked vehicles, poles, signs, etc.)
- all traffic controls (e.g., speed limit)
- north arrow placed on diagram
- roadway surface type and condition of applicable roadways
- grade measurements for all applicable roadways and at location of rollover initiation
- roadway curvature

**Document vehicle dynamics including:**

- reference point and reference line relative to physical features present at the scene
- scaled documentation of all accident induced physical evidence
- scaled documentation of all roadside objects contacted
- scaled representations of the vehicle(s) at pre-impact, impact, and final rest based upon either:
  - a) physical evidence, or
  - b) reconstructed accident dynamics

## CRASH DATA

VEH. #1    VEH. #2    VEH. #3

Heading Angle 24 275

Surface Type B, t B, t

Surface Condition WET WET

Coefficient of Friction

Grade (v/h)  $\frac{-2.75}{48} + \frac{+0.25}{48}$   
 Measurement (between impact and final rest) \_\_\_\_\_

Grade (v/h) \_\_\_\_\_  
Measurement N/A N/A \_\_\_\_\_  
(at location of  
rollover initiation)

Reference Point: NA

Reference line: N/A

NO EVIDENCE

[illegible]



## Appendix A:

### POLICE ACCIDENT AND INCIDENT REPORTS

The Vehicle Identification Number reported on the Police Accident Report for the Case Vehicle (Police Accident Report's vehicle #2) is incorrect. This VIN most likely reflects the vehicle leased previously by the Case Vehicle's driver.

# Motor Vehicle Accident Report

Document Number Override

## INSTRUCTIONS

Please use a  
Black Ink Pen  
or #2 Pencil.

Mark Areas as shown:

Incorrect Marks

Reportable Accident

Reportable Accident

LATITUDE (GPS)

Degrees

Minutes

Seconds

LONGITUDE (GPS)

Degrees

Minutes

Seconds

ON

Hwy No. and Street Name

Estimated

FT.

MI

FROM

Hwy No. and Street Name

House #  
Utility #Fire #  
Railroad #

Other

Agency Space

Special Study

Unit Number

Unit Type

Total Number of Occupants

Direction of Travel  
(Before the Accident)

Unit Number

Unit Type

Total Number of Occupants

Direction of Travel  
(Before the Accident)

Speed Limit

OPERATOR Last Name

First

M.I.

Speed Limit

OPERATOR Last Name

First

M.I.

ADDRESS Street &amp; Number

ADDRESS Street &amp; Number

City &amp; State

ZIP

Phone Number

City &amp; State

ZIP

Phone Number

Driver's License Number

State

Exp. Year

Driver's License Number

State

Exp. Year

Date of Birth

Sex

Operating

Class

Endorse

Date of Birth

Sex

Operating

Class

Endorse

On Duty

Police

EMT-Paramedic

Fire Fighter

Winter Hwy Maintenance

CMV

Classified

On Duty

Police

EMT-Paramedic

Fire Fighter

Winter Hwy Maintenance

CMV

Classified

Severity

SEAT

SAFETY

Position

Equipment

AIRBAG

EJECTED

Not Applicable

Partially Ejected

Severity

SEAT

SAFETY

Position

Equipment

AIRBAG

EJECTED

Not Applicable

Partially Ejected

TRAPPED/

EXTRICATED

Not Applicable

Trapped/Extricated

Unknown

Medical

Transport

TRAPPED/

EXTRICATED

Not Applicable

Trapped/Extricated

Unknown

Medical

Transport

Vehicle Owner

Last Name

First

Vehicle Owner

Last Name

First

M.I.

Street Address

Street Address

City &amp; State

ZIP

Phone Number

City &amp; State

ZIP

Phone Number

Year of Vehicle

Make

Model

Body Style

Color

Year of Vehicle

Make

Model

Body Style

Color

Vehicle ID Number

1MEBM53LCKG

Vehicle ID Number

1R4GH54R9SN

License Plate Number

Plate Type

State

Exp. Year

License Plate Number

Plate Type

State

Exp. Year

Policy Holder's Name

Same

License

Policy Holder's Name

Same

Liability Insurance Company

Stat. #

Liability Insurance Company

Stat. #

Occupant

NAME

Last

First

M.I.

Date of Birth

Sex

Severity

SEAT

SAFETY

Position

Equipment

AIRBAG

Unit Number

ADDRESS

Street &amp; Number

City &amp; State

ZIP

Address Same as Operator

Yes

No

EJECTED

Not Applicable

Partially Ejected

Unknown

TRAPPED/

EXTRICATED

Not Applicable

Trapped/Extricated

Trapped/Not Extricated

Unknown

Medical

Transport

Agency Space

MV4000 1293

EMS Number

## Officer's Opinion of Possible Contributing Circumstances

Document Number Override

## Driver Factors

Unit Number

NA

Exceeding speed limit  
 speed too fast condition  
 Fail to Yield Right of Way  
 Inattentive Driving  
 Following too Close  
 Improper Turn  
 Left of Center  
 Disregarded Traffic Control  
 Improper Overtaking  
 Unsafe Backing  
 Failure to have Control  
 Driver Condition  
 Physically Disabled  
 Other

## Vehicle Factors

Unit Number

NA

Brake System  
 Tires  
 Steering System  
 Turn Signals  
 Head Lamps  
 Stop Lamps  
 Tail Lamps  
 Disabled in Prior Accident  
 Other Disabled  
 Mirrors  
 Suspension System  
 Other

## Highway Factors

Unit Number

NA

snow, ice or wet  
 Narrow shoulder  
 Low Shoulder  
 Soft Shoulder  
 Loose Gravel  
 Rough Pavement  
 Debris from Prior Accident  
 Other Debris  
 Sign Obscured or Missing  
 Narrow Bridge  
 Construction Zone  
 Visibility Obscured  
 Other

## OFFICER INFORMATION

Last	First	M.I.
[REDACTED]	[REDACTED]	[REDACTED]
Law Enforcement Agency Address		
[REDACTED]		
City & State		
[REDACTED], WI [REDACTED]		
Phone Number		
[REDACTED] (25)		
Agency #	Parent Agency	Officer ID #
124	SHERIFF	151

## Date Notified

MONTH	DAY	YEAR
Jan		
Feb		
Mar	9	95
Apr	1	
May	2	
June	3	
July	4	
Aug	5	
Sept	6	
Oct	7	
Nov	8	
Dec	9	

Time Notified  
(Military Time)

HOUR	MIN.
07	47
08	00
09	00
10	00
11	00
12	00
13	00
14	00
15	00
16	00
17	00
18	00
19	00
20	00
21	00
22	00
23	00

Time Arrived  
(Military Time)

HOUR	MIN.
07	50
08	00
09	00
10	00
11	00
12	00
13	00
14	00
15	00
16	00
17	00
18	00
19	00
20	00
21	00
22	00
23	00

## Date of Report

MONTH	DAY	YEAR
Jan		
Feb		
Mar	9	95
Apr	1	
May	2	
June	3	
July	4	
Aug	5	
Sept	6	
Oct	7	
Nov	8	
Dec	9	

## Truck &amp; Bus Accident Information

(This Section Must Be Completed for Each Truck or Bus Involved in this Accident.)

When To Use This Section: "Did the accident involve..."

Part A

A truck with at least two axles and six tires? ☒ Y ☐ N

A truck with a hazardous materials placard? ☒ Y ☐ N

A bus designed to carry 16 or more persons, including the driver? ☒ Y ☐ N

STOP! If all the responses to Part A are "NO" do not complete this Truck & Bus Accident Information Section. If there are any "YES" answers, continue to Part B.

Part B

Any person who was fatally injured? ☒ Y ☐ N

Any injured person requiring transport for immediate medical treatment? ☒ Y ☐ N

One or more vehicles that had to be towed from the scene as a result of the accident? ☒ Y ☐ N

One or more vehicles that required repair or were provided assistance before proceeding from scene under own power? ☒ Y ☐ N

STOP! If all the responses to Part B are "NO" do not continue. If there are any "YES" answers, please complete this Truck & Bus Accident Information Section...

## Hazardous Material Information

Hazardous Material Class Numbers (1-2digit):

Hazardous Material "UN" Numbers (4 digit):

Hazardous Material Placard Displayed? ☒ Y ☐ N

Hazardous Cargo was Released? ☒ Y ☐ N

List the Hazardous Material(s) by name in this load:

List the Name(s) of Released Hazardous Material(s):

## Carrier Information

Interstate Carrier? ☐

Carrier Name

## Carrier Identification Numbers

US DOT (4) LC

ICC MC IC

Carrier Address

## Source:

Vehicle Side  
 Shipping Papers  
 Trip Manifest  
 Driver  
 Log Book

## Vehicle Information

Vehicle Configuration

Single unit truck, 2 axles, 6 tires

Single unit truck, 3 axles

Truck Tractor

Tractor Trailer

Tractor Semi-Trailer

Tractor/Trailer

Tractor/Trailer

Log Truck

Gross Vehicle Weight Rating

LBS

Total # of Axles

SEQUENCE OF EVENTS FOR THIS VEHICLE

Ran off Road

Jackknife

Overturn (Rollover)

Downhill Runaway

Cargo Loss or Shift

Explosion or Fire

Separation of Units

Collision involving pedestrian

Collision involving motor vehicle in transp.

Collision involving parked motor vehicle

Collision involving train

Collision involving pedalcycle

Collision involving animal

Collision involving fixed object

Collision involving other object

Other

Bus

Van Enclosed box

Cargo Tank

Flatbed

Dump

Concrete Mixer

Van Transporter

Garbage Refuse

Other

Log Truck

Supplemental Reports

Witness Statements

Measurements Taken

Remarks in Impact

CTH

STOP SIGN

Concrete

WITNESS



WITNESS

NOT TO SCALE  
MEASUREMENTS ARE IN PAGES  
ONE PAGE = APPROX. 3 FT

Diagram By: DEP

N UNIT #1 TRAVELING W/B ON CTH STOPPED FOR  
A STOP SIGN AND ATTEMPTED TO CROSS STH HOWEVER  
R UNIT #1 PULLED INTO THE PATH OF UNIT #2 WHO WAS  
R UNABLE TO STOP. DRIVER UNIT #1 STATED HE DIDN'T  
SEE UNIT #2.

A WITNESS  
T  
I  
V  
E

WITNESS NAME	First	MI
ADDRESS Street & Number	Date of Birth	
City & State	ZIP	Phone number

- ACCESS CONTROL**
- ☐ No Control (Unlimited Access)
  - ☐ Full Control (Only Ramp Entry/Exit)
  - ☐ Partial Control

- TRAFFIC WAY**
- ☐ Not Physically Divided (2-Way Traffic)
  - ☐ Divided Highway, Median Strip, without Traffic Barrier
  - ☐ Divided Highway, Median Strip, with Traffic Barrier
  - ☐ One-Way Traffic
  - ☐ Parking Lot or Private Property

- RELATION TO ROADWAY**
- ☐ On Roadway
  - ☐ Parking Lot or Private Property
  - ☐ Shoulder (Other than Shoulder within Median or Gore)
  - ☐ Median (Other than Median within Gore)
  - ☐ Outside Shoulder—Left
  - ☐ Outside Shoulder—Right
  - ☐ Off Roadway—Location Unknown
  - ☐ On Ramp
  - ☐ Gore (Area between Ramp & Highway)
  - ☐ Unknown

**ROAD TERRAIN**

- Part A**
- ☐ Straight
  - ☐ Curve

- Part B**
- ☐ Level Flat
  - ☐ Hill

**ROAD SURFACE CONDITION**

- ☐ Dry
- ☐ Wet
- ☐ Snow/Slush
- ☐ Ice
- ☐ Sand, Mud, Dirt, Oil
- ☐ Other
- ☐ Unknown

**LIGHT CONDITION**

- ☐ Daylight
- ☐ Dark—Not Lighted
- ☐ Dark—Lighted
- ☐ Dawn
- ☐ Dusk
- ☐ Unknown

**WEATHER**

- ☐ Clear
- ☐ Cloudy
- ☐ Rain
- ☐ Snow
- ☐ Fog, Smog, Smoke
- ☐ Sleet, Hail
- ☐ Freezing Rain or Drizzle
- ☐ Blowing Sand, Soil, Dirt, Snow
- ☐ Severe Crosswinds
- ☐ Other
- ☐ Unknown

Photos By:

105

NONE

**What Drivers Were Doing**

Unit Number

Unit Number

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

- ☐ Going Straight
- ☐ Making Left Turn
- ☐ Making Right Turn
- ☐ Slowing or Stopping
- ☐ Stopped in Traffic
- ☐ Legally Parked
- ☐ Violating No Passing Zone
- ☐ Illegally Parked
- ☐ Parking Maneuver
- ☐ Backing Maneuver
- ☐ Changing Lanes
- ☐ Overtaking on left
- ☐ Overtaking on right
- ☐ Making U Turn
- ☐ Turning on red
- ☐ Merging
- ☐ Negotiating Curve
- ☐ Other

**Traffic Control**

Unit Number

Unit Number

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

- ☐ No Control
- ☐ Traffic Signal Operating
- ☐ Traffic Signal Flashing
- ☐ Stop sign
- ☐ Stop sign with Flasher
- ☐ Warning
- ☐ Warn sign with Flasher
- ☐ Yield sign
- ☐ Traffic Control Person
- ☐ RR-crossing Signal
- ☐ Other



Occupant Unit Number	NAME	Last	First	M.I.	Date of Birth	SEX	SEAT Position	SAFETY Equipment	URBAG
Address Same as Operator	ADDRESS	Street & Number		City & State		2 Months	ZIP	3 4	Agency Space
EJECTED	Not Applicable	3. Totally Ejected	4. Partially Ejected	5. Unknown	TRAPPED/EXTRICATED	Not Applicable	4. Trapped/Not Extricated	5. Unknown	Medical Transport
Occupant Unit Number	NAME	Last	First	M.I.	Date of Birth	SEX	SEAT Position	SAFETY Equipment	URBAG
Address Same as Operator	ADDRESS	Street & Number		City & State		ZIP			Reviewed Non Deployed Not Applicable Unknown
EJECTED	Not Applicable	3. Totally Ejected	4. Partially Ejected	5. Unknown	TRAPPED/EXTRICATED	Not Applicable	4. Trapped/Not Extricated	5. Unknown	Medical Transport

## Type of Accident

01	First Harmful Event
Most Harmful Event	
Unit Number	Unit Number
1 2 3 4 5	1 2 3 4 5
6 7 8 9 10	6 7 8 9 10
(select one per vehicle)	

## Collision With Object Not Fixed

1. Motor Vehicle in Transport	2. Parked Motor Vehicle	3. Deer	4. Pedalcycle	5. Pedestrian	6. Railway Train	7. Other Animal	8. Motor Vehicle in Transport In Other Roadway	9. Other Object (Not Fixed)
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## Collision With Fixed Object

10. Traffic Sign Posts	11. Traffic Signal	12. Utility Pole	13. Lum. Light Support	14. Other Post	15. Tree	16. Mailbox	17. Guardrail Face	18. Guardrail End	19. Median Barrier	20. Bridge Parapet End	21. Bridge/Pier/Abut.	22. Impact Attenuator	23. Overhead Sign Post	24. Bridge Rail	25. Culvert	26. Ditch	27. Curb	28. Embankment	29. Fence	30. Other Fixed Object	31. Unknown
------------------------	--------------------	------------------	------------------------	----------------	----------	-------------	--------------------	-------------------	--------------------	------------------------	-----------------------	-----------------------	------------------------	-----------------	-------------	-----------	----------	----------------	-----------	------------------------	-------------

## Non-Collision

32. Overturn	33. Fire Explosion	34. Immersion	35. Jackknife	36. Other Non-Collision
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## Driver Condition

Unit Number	Unit Number
1 2 3 4 5	1 2 3 4 5
6 7 8 9 10	6 7 8 9 10

## Driver Factors (Or Pedestrians)

1. Appeared Normal	2. Reduced Alertness	3. Ability Impaired	4. Not Observed
--------------------	----------------------	---------------------	-----------------

## Presence

Neither Alcohol nor Drugs Present

6. Yes—Alcohol Present	7. Yes—Drugs Present	8. Yes—Alcohol & Drugs Present	9. Unknown
------------------------	----------------------	--------------------------------	------------

## Alcohol

AC Value	AC Value
----------	----------

1. Test Not Given	2. Test Refused	3. Test Given, Alcohol Unknown	4. Test Given, No Alcohol Reported
-------------------	-----------------	--------------------------------	------------------------------------

## Drugs

1. Test Not Given	2. Test Refused	3. Test Given, Drugs Unknown	4. Test Given, No Drugs Reported	5. Drugs Reported (Specify Below)
-------------------	-----------------	------------------------------	----------------------------------	-----------------------------------

1. Marijuana	2. Cocaine	3. Opiates	4. Amphetamines	5. PCP	6. Other Drug Medication	7. Type Unknown
--------------	------------	------------	-----------------	--------	--------------------------	-----------------

## Unit #

## Pedestrian

Location	Action
1. In Crosswalk	Walking not Facing Traffic
2. In Roadway	Disregarded Signal
3. Not in Roadway	Darting into Road
4. On Sidewalk	Dark Clothing
	Walking Facing Traffic

## Manner of Collision

1. No Collision with Motor Vehicle in Transport	2. Rear-end	3. Head On	4. Rear to Rear	5. Angle	6. Sideswipe, Same Direction	7. Sideswipe, Opposite Direction	8. Unknown
---	-------------	------------	-----------------	----------	------------------------------	----------------------------------	------------

## Unit #

## Darken Numbered Area(s) of Vehicle Damage

1. None	2. Undercarriage	3. Total (Damage to all Areas)	4. Other	5. Unknown
---------	------------------	--------------------------------	----------	------------

## Extent of Damage

1. None	2. Very Minor	3. Minor	4. Moderate	5. Severe	6. Very Severe	7. Unknown
---------	---------------	----------	-------------	-----------	----------------	------------

Vehicle Towed Due to Damage: ☒

Vehicle Removed By: Towing

## Unit #

## Darken Numbered Area(s) of Vehicle Damage

1. None	2. Undercarriage	3. Total (Damage to all Areas)	4. Other	5. Unknown
---------	------------------	--------------------------------	----------	------------

## Extent of Damage

1. None	2. Very Minor	3. Minor	4. Moderate	5. Severe	6. Very Severe	7. Unknown
---------	---------------	----------	-------------	-----------	----------------	------------

Vehicle Towed Due to Damage: ☒

Vehicle Removed By: Towing

## Fixed Object Struck

Unit	Unit	Unit	Unit	Unit	Unit
------	------	------	------	------	------

Govt. Damage Tag # 85

## PROPERTY OWNER

Last First M.I.

ADDRESS Street & Number

City & State

ZIP

Phone Number ( )

## INCIDENT REPORT

SHERIFF'S DEPT.

WISCONSIN

1. ACTIVITY CODE 1 0 1		GRID CODE		JURISDICTION		COMPLAINT NUMBER	
2. Location of Incident STH AT CTH		Inside <input checked="" type="checkbox"/> Outside		Date and Time Occurred 95 0745			
Date and Time Report Taken 95 0750		WEATHER: <input type="checkbox"/> Snow-Sleet <input type="checkbox"/> Rain		<input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Fog		LIGHTING: <input type="checkbox"/> Natural <input type="checkbox"/> Artificial Interior <input type="checkbox"/> Artificial Exterior	
3. TYPE OF INCIDENT	<input type="checkbox"/> HOMICIDE		<input type="checkbox"/> ASSAULT		<input type="checkbox"/> ROBBERY		<input type="checkbox"/> BURGLARY
	<input type="checkbox"/> THEFT		<input type="checkbox"/> ARSON		<input type="checkbox"/> OTHER DESCRIBE P.I. ACCIDENT		
EXTENT OF INJURY		Location of Injury		Type of Injury		Removed By	
<input type="checkbox"/> Minor <input type="checkbox"/> Serious <input type="checkbox"/> Fatal		<input type="checkbox"/> Head <input type="checkbox"/> Face <input type="checkbox"/> Neck <input type="checkbox"/> Arm <input type="checkbox"/> Hand <input type="checkbox"/> Leg <input type="checkbox"/> Foot					
5. CODE: V—Victim W—Witness C—Complainant M—Mentioned O—Owner		Additional Names or Suspects <input type="checkbox"/> Yes <input type="checkbox"/> No					
LAST-FIRST-MI		DOB		Address		Phone	
m		72 S R					
m		45 S R					
m		56 S R					
m		2 S R					
w		49 S R					
w		unk S R					
6. Last-First-MI		S R		DOB		Age	
Address		Hair		Eyes		Wt. Ht.	
Last-First-MI		S R		DOB		Age	
Address		Hair		Eyes		Wt. Ht.	
7. Scene Processed By		<input type="checkbox"/> No		EVIDENCE RECOVERED <input type="checkbox"/> Yes <input type="checkbox"/> No		NEIGHBORHOOD CHECK <input type="checkbox"/> Yes <input type="checkbox"/> No	
Photos <input type="checkbox"/> Yes <input type="checkbox"/> No		Fingerprints <input type="checkbox"/> Yes <input type="checkbox"/> No		P.I. NO.:		By	
8. VEHICLE STATUS		Year		Make		Style	
<input type="checkbox"/> Stolen <input type="checkbox"/> Target <input type="checkbox"/> Recovered <input type="checkbox"/> Suspect		Vin.		Model		Color	
				License Number		State	
				Additional Identification or Information		Value	
9. Was Permission Given to Commit Act? <input type="checkbox"/> Yes <input type="checkbox"/> No		Name and Position of Person Who Gave or Denied Permission ACC #					
10. NARRATIVE		THIS WAS A MAJOR P.I. ACCIDENT WHICH OCCURRED AT THE ABOVE LOCATION. UNIT #1-DRIVEN BY WITH BEING A RIGHT FRONT PASSENGER. BOTH SUBJ. CONVEYED TO HOSPITAL BY RESCUE. SUSTAINING A BRUISED LEFT SIDE & A HEAD CUD. SUSTAIN A CUT TO HEAD AND POSSIBLE NECK. BOTH HAD SEAT BELTS ON. UNIT #2-DRIVEN BY WITH BEING A PASSENGER IN RIGHT FRONT SEAT IN A SAFETY SEAT. BOTH CONVEYED					
VICTIM WILL PROSECUTE <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk		Who will sign complaint		Page 1 of 2 Pages		Officer	
11. SOLVABILITY		PRIMARY		Secondary		Follow-up Required <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Suspect Location <input type="checkbox"/> Suspect Name <input type="checkbox"/> Suspect Identified <input type="checkbox"/> Witness to Crime <input type="checkbox"/>		Suspect Description <input type="checkbox"/> Weapon Description <input type="checkbox"/> Evidence Collected <input type="checkbox"/> Vehicle Information <input type="checkbox"/> Prop. ID'd/Located <input type="checkbox"/> M.O. Information <input type="checkbox"/>		COPIES <input type="checkbox"/> PATROL <input type="checkbox"/> INVEST <input type="checkbox"/> DISPATCH <input type="checkbox"/> D.A.		Supervisor	
						Shift Commander	

SHERIFF'S DEPT.

WISCONSIN

COMP. NO

TYPE OF  
INCIDENT

Accident

PAGE 2 of 2 PAGES

## NARRATIVE CONTINUATION

5. CODE: V-Victim W-Witness C-Complainant M-Mentioned O-Owner		Additional Names or Suspects		<input type="checkbox"/> Yes <input type="checkbox"/> No		
NAMES	LAST-FIRST-MI.	S	R	DOB	Address	Phone

TO [REDACTED] Hospital By [REDACTED] Rescue, Driver ([REDACTED])  
Sustained Bruises to KNEE AND NECK SORENESS. BABY [REDACTED]  
WAS CHECKED FOR POSSIBLE INJURY.

ACCIDENT OCCURRED WHEN UNIT #1 STOPPED AT ~~STOP~~ STOP SIGN  
TRAVELING W/R ON ETH [REDACTED] AT 5TH [REDACTED] WHEN UNIT #1 PULLED OUT  
INTO THE PATH OF UNIT #2

WITNESS [REDACTED] WAS BEHIND UNIT #2 WHEN HE SAW UNIT #1  
PULL OUT FROM STOP SIGN.

WITNESS [REDACTED] WAS TRAVELING S/R ON 5TH [REDACTED] WHEN SHE  
SAW UNIT #1 PULL OUT FROM STOP SIGN.

ACCIDENT ON FILE # [REDACTED]

D.E.P.

Follow-up Required ☐ Yes ☐ No [REDACTED] -95

## COPIES

TO	RUN
<input type="checkbox"/> PATROL	<input type="checkbox"/>
<input type="checkbox"/> INVEST	<input type="checkbox"/>
<input type="checkbox"/> DISPATCH	<input type="checkbox"/>
<input type="checkbox"/> D.A.	<input type="checkbox"/>

Supervisor

Shift Commander

21A

**Appendix B:**

**CASE VEHICLE'S REPAIR ESTIMATE**



, WISCONSIN

## ESTIMATE SHEET AND REPAIR ORDER

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

HOME PHONE \_\_\_\_\_ WORK PHONE \_\_\_\_\_ DATE \_\_\_\_\_

3.3L

YEAR-MODEL		MAKE OF CAR		BODY TYPE		LICENSE NO.		SERIAL NO.		MILEAGE	
96		Dodge		Cavonian Grand LE		[REDACTED]		1B4GP54R4TB		3702	
REPAIR	REPLACE					FRAME	MECHANICAL	PARTS	LABOR	REFINISHING	
	X	Cover Front	HP45SGJ					280.00	2.9	2.2	
	X	Support Upper Crossmember	4676878					12.75			
	X	Deflector Air	4576950E					20.50			
	X	Reinforcement	4576687					65.00			
	X	Grille	4576955					28.50			
	X	Clip Grille Front	6101956					1.00			
	X	Headlight LT.	4857041					215.00			
	X	Panel Hood						245.00	1.2	2.3	
		Add for underside								1.2	
		Rei Hood Assy							.6		
	X	Emblem	KS76SPF					7.60			
	X	Seal Hood	4716733					18.73			
	X	Hinge, Hood Half	4797817					6.25			
	X	Hinge Body Half	4716451					2.50	.3		
	X	Hinge Body Half	4716450					2.50	.3		
	X	Hinge Hood Half	4797816					6.25			
	X	Clip Rod	6508271					.35			
	X	Catcha striker, safety	4797979					18.75			
	X	Radiator	4682587				1.1	280.00	2.3		
	X	Insulator upper	4734198	Two				5.60			
	X	Insulator Lower	4592113	Two				2.90			
	X	Cap Reservoir	4682828					3.20			
	X	Fan Assy Cooling	4682624				6	280.00	.6		
	X	Reservoir Coolant	4682607					10.75	.7		
	X	Seal Air	4682962					2.70			
SUBJECT TO INVOICE PRICE CHANGES											
SUBTOTALS											

SUBJECT TO INVOICE PRICE CHANGES SUBTOTALS

THIS ESTIMATE IS BASED ON OUR INSPECTION AND DOES NOT COVER ADDITIONAL PARTS OR LABOR WHICH MAY BE REQUIRED AFTER THE WORK HAS BEEN STARTED. AFTER THE WORK HAS STARTED, WORK ON DAMAGED PARTS WHICH ARE NOT EVIDENT ON FIRST INSPECTION MAY BE DISCOVERED. NATURALLY THIS ESTIMATE CANNOT COVER SUCH CONTINGENCIES. PARTS PRICES SUBJECT TO CHANGE WITHOUT NOTICE. THIS ESTIMATE IS FOR IMMEDIATE ACCEPTANCE.

PAINT &amp; MATERIAL

TOWING

TOTAL

SALES TAX

GRAND TOTAL

THIS WORK AUTHORIZED BY \_\_\_\_\_

, WISCONSIN

## ESTIMATE SHEET AND REPAIR ORDER

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

HOME PHONE \_\_\_\_\_ WORK PHONE \_\_\_\_\_ DATE \_\_\_\_\_

YEAR-MODEL		MAKE OF CAR	BODY TYPE	LICENSE NO.		SERIAL NO.		MILEAGE	
REPAIR	REPLACE			FRAME	MECHANICAL	PARTS	LABOR	REFINISHING	
		F-Vac System	2.46158		1.4	30.00			
	X	Condenser	4682589		1.5	300.00			
		Gasket-Condenser				4.30			
	X	Cleaner Assy-Air	4612225		3	62.50			
	X	Resonator Assy, Cleaner	4612512		3	62.50			
	X	Shield-Air Intake	4618917			4.50			
	X	Tray-Battery w/speed control	4716740			21.25			
	X	Horn High	4685307			42.50	3		
	X	Horn Low	4685808			21.25	3		
	X	Wire Loom	4707612			305.00	3.0		
	X	Refrigerant Recarm			3				
	X	Tie Bar Assy upper	4860194			97.00	2.0		
	X	Tie Bar Assy Lower	4716500			87.00	3.0		
	X	Panel Assy-Side Supt	4798353			118.00	2.5		
	X	Apron Front	4797815 Lt			33.25	6.0		
	X	Reinforcement Apron	4797905 Lt			35.00			
	X	Rail Assy, side Lt	4716499			174.00	8.5		
	X	Reinforcement Fender/Rd	4797859			33.50	2.0		
	X	Fender	4797809			105.00			1.5
		Add to Edge							.5
	X	Splash shield	4716609			25.00			
		Set up Frame		2.0					
		Frame Tie		8.0					
	X	Module Air Bag	GP43SK5			445.00			
	X	Clock spring	4687630			57.00	7		
SUBJECT TO INVOICE PRICE CHANGES				SUBTOTALS					

THIS ESTIMATE IS BASED ON OUR INSPECTION AND DOES NOT COVER ADDITIONAL PARTS OR LABOR WHICH MAY BE REQUIRED AFTER THE WORK HAS BEEN STARTED. AFTER THE WORK HAS STARTED, WORK ON DAMAGED PARTS WHICH ARE NOT EVIDENT ON FIRST INSPECTION MAY BE DISCOVERED. USUALLY THIS ESTIMATE CANNOT COVER SUCH CONTINGENCIES. PARTS PRICES SUBJECT TO CHANGE WITHOUT NOTICE. THIS ESTIMATE IS FOR IMMEDIATE ACCEPTANCE.

PAINT &amp; MATERIAL

TOWING

TOTAL

SALES TAX

GRAND TOTAL

THIS WORK AUTHORIZED BY \_\_\_\_\_



, WISCONSIN

## ESTIMATE SHEET AND REPAIR ORDER

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

HOME PHONE \_\_\_\_\_ WORK PHONE \_\_\_\_\_ DATE \_\_\_\_\_

YEAR-MODEL		MAKE OF CAR	BODY TYPE	LICENSE NO.		SERIAL NO.		MILEAGE	
REPAIR	REPLACE			FRAME	MECHANICAL	PARTS	LABOR	REFINISHING	
	X	Mount Engine Rt	4612427			27.50	.5		
	X	Support Rt Mount	4612304			23.00	.5		
	X	Mount Trans	4612369			50.50	.3		
	X	Bracket Trans Mount	4612408			13.75			
	X	Module Air Bag	4680083			500.00	6.0		
	X	Air Bag Control Unit	5269568			320.00			
	X	Sub Frame	4684281			335.00	8.0		
	X	Trans Switch	4671017		2	10.50			
	X	Relay Box	4707730			117.00	2.0		
	X	License Plate Bracket	4676316			13.00			
	X	Windshield Nozzle	4673014			3.60			
	X	Air Intake Duck	4612907			25.00			
	X	Amb Temp Switch	4685606			12.75			
	X	Valve Cover	4449867		4	33.50			
	X	Heat Shield - Exhaust	4694129		5	8.75			
	X	Dodge Air Conditioning	4677229			.35			
	X	Panel Body side door	4792091	lt		500.00	14.0	3.3	
X		Inner Housing					2.0	.3	
		Tin & Blend						2.0	
		Rust Protection and Calk - undercoating				45.00			
		Alarm Lights					.5		
		Four Wheel Alignment			79.95				
		Clear Coat						2.0	
		Anti Freeze				12.00			
		Waste Removal				10.00			

SUBJECT TO INVOICE PRICE CHANGES SUBTOTALS

THIS ESTIMATE IS BASED ON OUR INSPECTION AND DOES NOT COVER ADDITIONAL PARTS OR LABOR WHICH MAY BE REQUIRED AFTER THE WORK HAS BEEN STARTED. AFTER THE WORK HAS STARTED, WORK ON DAMAGED PARTS WHICH ARE NOT EVIDENT ON FIRST INSPECTION MAY BE DISCOVERED. NATURALLY THIS ESTIMATE CANNOT COVER SUCH CONTINGENCIES. PARTS PRICES SUBJECT TO CHANGE WITHOUT NOTICE. THIS ESTIMATE IS FOR RESEMBLANCE ACCEPTANCE.

PAINT &amp; MATERIAL

TOWING

TOTAL

SALES TAX

GRAND TOTAL

THIS WORK AUTHORIZED BY

**, WISCONSIN**

# ESTIMATE SHEET AND REPAIR ORDER

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

HOME PHONE \_\_\_\_\_ WORK PHONE \_\_\_\_\_ DATE \_\_\_\_\_

[illegible]

<b>SUBJECT TO INVOICE PRICE CHANGES</b>		<b>SUBTOTALS</b>	420.00	737.05	5688.58	2138.50	535.50
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THIS ESTIMATE IS BASED ON OUR INSPECTION AND DOES NOT COVER ADDITIONAL PARTS OR LABOR WHICH MAY BE REQUIRED AFTER THE WORK HAS BEEN STARTED. AFTER THE WORK HAS STARTED, WORK ON DAMAGED PARTS WHICH ARE NOT EVIDENT ON FIRST INSPECTION MAY BE NECESSARY. NATURALLY THIS ESTIMATE CANNOT COVER SUCH CONTINGENCIES. PARTS PRICES SUBJECT TO CHANGE WITHOUT NOTICE. THIS ESTIMATE IS FOR IMMEDIATE ACCEPTANCE.

PAINT & MATERIAL	275.	40
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## TOWING

**TOTAL**

**SALES TAX**

**GRAND TOTAL**

**THIS WORK AUTHORIZED BY**

24.A



**Appendix C:**

**RECONSTRUCTION PROGRAM RESULTS:**

**CRASHPC  
(BARRIER OPTION--VEHICLE #2)**

**TRC VECTOR ANALYSIS ITERATIONS**

**CRASHPC**  
**(BARRIER OPTION--VEHICLE #2)**



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## CRASHPC PROGRAM SUMMARY

(All Measurements in Metric)

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

Identifying Title				
<u>10</u> Primary Sampling Unit	<u>9521</u> Case No.-Stratum	<u>01</u> Accident Event Sequence No.	_____ Date (Month, day, year) of Run	
CRASHPC Vehicle Identification				
Vehicle 1	<u>1996</u>	<u>Dodge</u>	<u>Grand Caravan</u>	<u>01</u>
Vehicle 2	<u>1989</u>	<u>Mercury</u>	<u>Sable LS</u>	<u>02</u>
	Year	Make	Model	NASS Veh. No.

### GENERAL INFORMATION

VEHICLE 1		VEHICLE 2	
Size	<u>11</u>	Size	<u>3</u>
Weight		Weight	
<u>    </u> + <u>    </u> + <u>    </u> = <u>    </u> kg		<u>1,412</u> + <u>143</u> + <u>0</u> = <u>1555</u> kg	
Curb Occupant(s) Cargo		Curb Occupant(s) Cargo	
CDC		CDC	<u>10L2EW2</u>
PDOF (-180 to +180)	<u>±</u> <u>    </u> °	PDOF (-180 to +180)	<u>0060</u> °
Stiffness	<u>    </u>	Stiffness	<u>3</u>

### SCENE INFORMATION

Rest and Impact Positions <input checked="" type="checkbox"/> No, Go To Damage Information <input type="checkbox"/> Yes			
VEHICLE 1		VEHICLE 2	
Rest Position	X <u>    </u> m Y <u>    </u> m PSI <u>    </u> °	Rest Position	X <u>    </u> m Y <u>    </u> m PSI <u>    </u> °
Impact Position	X <u>    </u> m Y <u>    </u> m PSI <u>    </u> °	Impact Position	X <u>    </u> m Y <u>    </u> m PSI <u>    </u> °
Slip Angle(-180 to +180)	<u>    </u> °	Slip Angle (-180 to +180)	<u>    </u> °

### VEHICLE MOTION

Sustained Contact <input type="checkbox"/> No <input type="checkbox"/> Yes			
VEHICLE 1		VEHICLE 2	
Vehicle Rotation <input type="checkbox"/> No <input type="checkbox"/> Yes		Vehicle Rotation <input type="checkbox"/> No <input type="checkbox"/> Yes	
Rotation Stop Before Rest <input type="checkbox"/> No <input type="checkbox"/> Yes		Rotation Stop Before Rest <input type="checkbox"/> No <input type="checkbox"/> Yes	
End of Rotation Position	X <u>    </u> m Y <u>    </u> m PSI <u>    </u> °	End of Rotation Position	X <u>    </u> m Y <u>    </u> m PSI <u>    </u> °
Curved Path <input type="checkbox"/> No <input type="checkbox"/> Yes		Curved Path <input type="checkbox"/> No <input type="checkbox"/> Yes	
Point on Path X <u>    </u> m Y <u>    </u> m		Point on Path X <u>    </u> m Y <u>    </u> m	
Rotation Direction <input type="checkbox"/> None <input type="checkbox"/> CW <input type="checkbox"/> CCW		Rotation Direction <input type="checkbox"/> None <input type="checkbox"/> CW <input type="checkbox"/> CCW	
Rotation > 360° <input type="checkbox"/> No <input type="checkbox"/> Yes		Rotation > 360° <input type="checkbox"/> No <input type="checkbox"/> Yes	

**FRICTION INFORMATION**

Coefficient of Friction \_\_\_\_\_

Rolling Resistance Option \_\_\_\_\_

## Vehicle 1 Rolling Resistance

LF \_\_\_\_\_ RF \_\_\_\_\_

LR \_\_\_\_\_ RR \_\_\_\_\_

## Vehicle 2 Rolling Resistance

LF \_\_\_\_\_ RF \_\_\_\_\_

LR \_\_\_\_\_ RR \_\_\_\_\_

**TRAJECTORY INFORMATION**Trajectory Data ☐ No ☐ Yes*If No, Go To Damage Information*

## Vehicle 1 Steer Angles

LF \_\_\_\_\_ ° RF \_\_\_\_\_ °

LR \_\_\_\_\_ ° RR \_\_\_\_\_ °

## Vehicle 2 Steer Angles

LF \_\_\_\_\_ ° RF \_\_\_\_\_ °

LR \_\_\_\_\_ ° RR \_\_\_\_\_ °

Terrain Boundary ☐ No ☐ Yes

## First Point

X \_\_\_\_\_ m Y \_\_\_\_\_ m

## Second Point

X \_\_\_\_\_ m Y \_\_\_\_\_ m

Secondary Coefficient of Friction \_\_\_\_\_

**DAMAGE INFORMATION**

## VEHICLE 1

Damage Length L \_\_\_\_\_ cm

Crush Depths C<sub>1</sub> \_\_\_\_\_ cmC<sub>2</sub> \_\_\_\_\_ cmC<sub>3</sub> \_\_\_\_\_ cmC<sub>4</sub> \_\_\_\_\_ cmC<sub>5</sub> \_\_\_\_\_ cmC<sub>6</sub> \_\_\_\_\_ cmDamage Offset D  $\pm$  \_\_\_\_\_ cm

## VEHICLE 2

Damage Length L 188 cmCrush Depths C<sub>1</sub> 0 cmC<sub>2</sub> 5 cmC<sub>3</sub> 17 cmC<sub>4</sub> 15 cmC<sub>5</sub> 16 cmC<sub>6</sub> 0 cmDamage Offset D  $\oplus$  121 cmIF THIS COMMON IMPACT WAS WITH A MOTOR VEHICLE *NOT IN TRANSPORT*, FILL IN THE INFORMATION BELOW.

Model Year: \_\_\_\_\_

Make: \_\_\_\_\_

Model: \_\_\_\_\_

VIN: \_\_\_\_\_

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate vehicle damage sketch and dimensions to the Form.

# SUMMARY OF CRASHPC RESULTS USING DAMAGE

Special Crash Investigation, TRC/IU Case 95-21, Task 9606

## SPEED CHANGE (DAMAGE)

### VEHICLE #1

TOTAL 0 KPH ( 0 MPH)  
 LONGITUDINAL 0 KPH ( 0 MPH)  
 LATITUDINAL 0 KPH ( 0 MPH)  
 PDOF ANGLE 0 DEGREES  
 ENERGY DISSIPATED = 0 JOULES ( 0 FT-LB)

### VEHICLE #2

TOTAL 12 KPH ( 7 MPH)  
 LONGITUDINAL -6 KPH ( -4 MPH)  
 LATITUDINAL 10 KPH ( 6 MPH)  
 PDOF ANGLE -60 DEGREES  
 ENERGY DISSIPATED = 15724 JOULES ( 11596 FT-LB)

## DAMAGE DATA

	VEHICLE #1	VEHICLE #2
SIZE CATEGORY	11	3
STIFFNESS CATEGORY	0	3
VEHICLE WEIGHT	***** KGS (2204586 LBS) *	1555 KGS ( 3428 LBS)
CDC	BARRIER	10LZEW2
PDOF ANGLE	0 DEGREES *	-60 DEGREES
CRUSH LENGTH	0 CM. ( 0 IN.) *	188 CM. ( 74 IN.)
C1	0 CM. ( 0 IN.) *	0 CM. ( 0 IN.)
C2	0 CM. ( 0 IN.) *	5 CM. ( 2 IN.)
C3	0 CM. ( 0 IN.) *	11 CM. ( 4 IN.)
C4	0 CM. ( 0 IN.) *	15 CM. ( 6 IN.)
C5	0 CM. ( 0 IN.) *	16 CM. ( 6 IN.)
C6	0 CM. ( 0 IN.) *	0 CM. ( 0 IN.)
D	0 CM. ( 0 IN.) *	-121 CM. ( -48 IN.)
D'	0 CM. ( 0 IN.) *	-106 CM. ( -42 IN.)

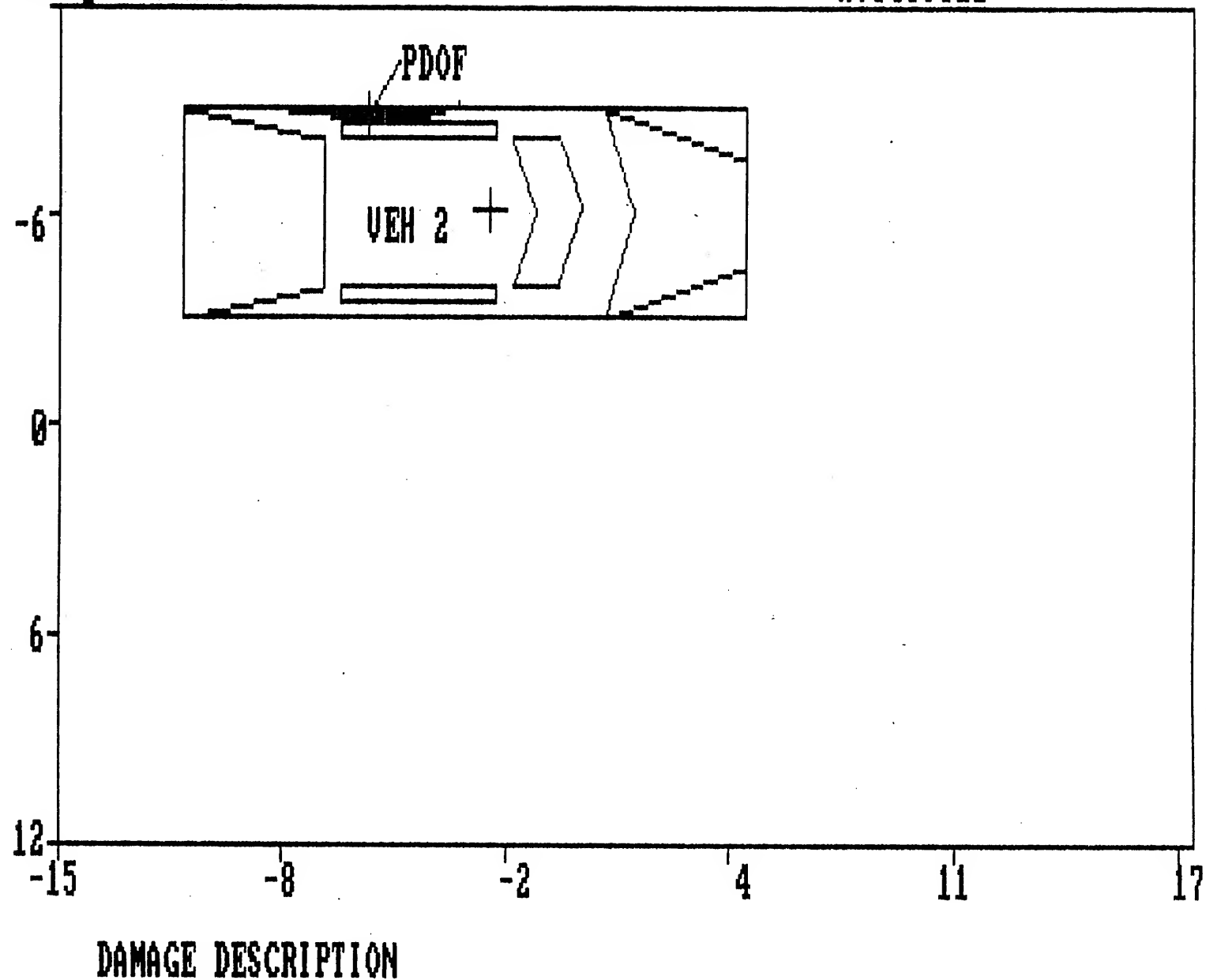
(\* INDICATES DEFAULT VALUE)

## DIMENSIONS AND INERTIAL PROPERTIES

	VEHICLE #1	VEHICLE #2
CG TO FRONT AXLE	127 CM. ( 50 IN.)	130 CM. ( 51 IN.)
CG TO REAR AXLE	127 CM. ( 50 IN.)	141 CM. ( 56 IN.)
TRACK	127 CM. ( 50 IN.)	150 CM. ( 59 IN.)
CG TO FRONT OF VEH	127 CM. ( 50 IN.)	228 CM. ( 90 IN.)
CG TO REAR OF VEH	-127 CM. ( -50 IN.)	-270 CM. (-106 IN.)
CG TO SIDE OF VEH	127 CM. ( 50 IN.)	92 CM. ( 36 IN.)
MOMENT OF INERTIA	***** KGS (***** LBS)	13439 KGS ( 29628 LBS)
VEHICLE MASS	2600 KGS ( 5732 LBS)	4 KGS ( 9 LBS)

Printing Picture:

A:SCI9521



28A

## TRC VECTOR ANALYSIS ITERATIONS

The TRC Vector Analysis program was used to determine the resultant theoretical Direction of Principal Force (PDOF) for both vehicles. Heading angles were determined from a combination of the Police Accident Report, the scene, and the vehicle inspections and weights were obtained from original specifications and interviewees. Based on our inspection of the each vehicle's crush, this contractor initially estimated the PDOFs as +10 degrees for the case vehicle and -70 degrees for vehicle #2.

The driver of the case vehicle indicated in her interview that she was traveling about the posted SPEED LIMIT of 72 k.p.h. (45 m.p.h.), when she attempted to brake and steer right to avoid vehicle #2. Because of the case vehicle driver's definite realization of the impending impact and her right steering maneuver supported by the crush to the case vehicle, her speed at impact was most likely 56-64 k.p.h. (35-40 m.p.h.). The case vehicle driver indicated that vehicle #2 stopped in her lane, whereas the driver of vehicle #2 and the witnesses cited on the Police Accident Report indicate that vehicle #2 pulled out in front of the case vehicle. According to the driver of vehicle #2, he indicated that he never saw the case vehicle. Therefore, vehicle #2 most likely was going approximately 8-16 k.p.h. (5-10 m.p.h.) at impact.

Six iterations of vehicle speeds are shown below: 48-64 k.p.h. (30-40 m.p.h.) for the case vehicle and 8-16 k.p.h. (5-10 m.p.h.) for vehicle #2. The program indicates that as vehicle #2's speed increases, the force collinearity vector rotates from -60 degrees toward -50 degrees for vehicle #2 while moving between +5 and +10 degrees for the case vehicle. Iterations three and five most closely match the observed vehicle crush. Therefore, the impact speeds for the case vehicle and vehicle #2 are most likely 56 k.p.h. (35 m.p.h.) and 8 k.p.h. (5 m.p.h.), respectively. In accordance with NASS, CDS protocol, the PDOFs were assigned at +10 for the case vehicle and -60 for vehicle #2.

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum  
Case Number: TRC/IU Case 95-21

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)  
(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)  
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)	①	
Ln. Axis Heading Angle	35	275		
CG Heading Angle	35	275		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	2	0		
Weight-Vehicle Curb Wt	1794	1412		
Weight-Passenger(s)	66	143		
Weight-Total	1862	1555		
Estimated Speed	64 (40)	8 (5) (mph)		
Momentum	119168	12440		
PDOF (Degrees)	5	-55	91	STM
PDOF (Clock Direction)	12	10		
Theoretical Delta V	31.1	37.2		
Theoretical Common Vel.		33.2	Post-Crash CG Heading	30

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum  
Case Number: TRC/IU Case 95-21

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)  
(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)  
(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)	②	
Ln. Axis Heading Angle	35	275		
CG Heading Angle	35	275		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	2	0		
Weight-Vehicle Curb Wt	1794	1412		
Weight-Passenger(s)	66	143		
Weight-Total	1862	1555		
Estimated Speed	64 (40)	16 (10) (mph)		
Momentum	119168	24880		
PDOF (Degrees)	9	-51	91	STM
PDOF (Clock Direction)	12	10		
Theoretical Delta V	33.4	40.0		
Theoretical Common Vel.		31.9	Post-Crash CG Heading	24



PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum  
Case Number: TRC/IU Case 95-21

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)	(3)	
Ln. Axis Heading Angle	35	275		
CG Heading Angle	35	275		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	2	0		
Weight-Vehicle Curb Wt	1794	1412		
Weight-Passenger(s)	66	143		
Weight-Total	1862	1555		
Estimated Speed	56 (35)	8 (5) (mph)		
Momentum	104272	12440		
PDOF (Degrees)	6	-54	<del>77</del> /91	STM
PDOF (Clock Direction)	12	10		
Theoretical Delta V	27.5	32.9		
Theoretical Common Vel.		28.9	Post-Crash CG Heading	29

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum  
Case Number: TRC/IU Case 95-21

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)	(4)	
Ln. Axis Heading Angle	35	275		
CG Heading Angle	35	275		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	2	0		
Weight-Vehicle Curb Wt	1794	1412		
Weight-Passenger(s)	66	143		
Weight-Total	1862	1555		
Estimated Speed	56 (35)	16 (10) mph		
Momentum	104272	24880		
PDOF (Degrees)	10	-50	<del>77</del> /91	STM
PDOF (Clock Direction)	12	10		
Theoretical Delta V	29.8	35.7		
Theoretical Common Vel.		27.6	Post-Crash CG Heading	22

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: TRC/IU Case 95-21

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)	(5)	
Ln. Axis Heading Angle	35	275		
CG Heading Angle	35	275		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	2	0		
Weight-Vehicle Curb Wt	1794	1412		
Weight-Passenger(s)	66	143		
Weight-Total	1862	1555		
Estimated Speed	48 (30)	8 (5) (mph)		
Momentum	89376	12440		
PDOF (Degrees)	6	-54	91	STM
PDOF (Clock Direction)	12	10		
Theoretical Delta V	23.9	28.6		
Theoretical Common Vel.		24.5	Post-Crash CG Heading	28

PDOF & Delta V Estimation From At Impact Heading Angles, Slip, and Momentum

Case Number: TRC/IU Case 95-21

Vehicle Numbers: 01 and 02

(Both Vehicles Must Be Tracking Or CRASH 3 Slip Angle(s) Estimated)

(Neither Vehicle May Be Backing)

(If The Back Of A Vehicle Is Involved, Its Speed Must Be Set To Zero)

(Some Configurations Involving Heavy Trucks Give Erroneous Results)

Vector Analysis Area	GV27(V01)	GV28(V02)	(6)	
Ln. Axis Heading Angle	35	275		
CG Heading Angle	35	275		
CRASH 3 Slip Angle	0	0		
Weight-Cargo	2	0		
Weight-Vehicle Curb Wt	1794	1412		
Weight-Passenger(s)	66	143		
Weight-Total	1862	1555		
Estimated Speed	48 (30)	16 (10) (mph)		
Momentum	89376	24880		
PDOF (Degrees)	12	-48	91	STM
PDOF (Clock Direction)	12	10		
Theoretical Delta V	26.3	31.4		
Theoretical Common Vel.		23.4	Post-Crash CG Heading	19

## TRC VECTOR ANALYSIS PROGRAM

PDOF (Direction of Principal Force) is assigned based on the vehicular crush. Heading Angles are assigned based on scene evidence and Police Accident Reported crash configurations. This program was created to enable researchers in the NASS CDS to assess the compatibility of their assigned vehicle PDOFs and heading angles. When two vehicles are involved in an impact, researchers were often times submitting PDOFs that were not compatible with their heading angle assignments, indicating a lack of understanding of basic vector analysis concepts. Subsequently, the TRC has used this program to help verify our field PDOF assignments by making logical changes in the reconstructed crash configuration and determining the affect these changes have on PDOF.

**Principal:** This program is based on the geometric triangle rule (i.e., the sum of the three angles of a triangle must equal 180 degrees). The direction of one vehicle's (e.g., the case vehicle or Vehicle #1) CG (i.e., Center of Gravity) forms one side of the triangle. The direction of the other vehicle's (e.g., Vehicle #2) CG forms a second side of the triangle. The third side of the triangle is then formed by each vehicle's respective PDOF because the forces are assumed to act collinear.

**Assumptions:** It is assumed that each vehicle's weight can be represented by a *"point-mass"*. It is assumed that the vector force acting on each vehicle goes through the center of gravity (i.e., CG) of the vehicle. Further, it is assumed that the vehicles move off together joined as one object. This program does not take into affect the mass reduction that occurs in other reconstruction programs since its primary purpose is to check the compatibility of the field determined PDOF and Heading Angle.

**Inputs:** Heading Angle, Slip Angle (*"Yaw"*), Weights (Curb Weight, Cargo Weight, and Weight of all occupants), and Speed

**Outputs:** This program's primary output is each vehicle's theoretical PDOF, presented in both degrees and CDC clock directions. Other outputs include a theoretical Delta V and a theoretical Common Velocity. The theoretical Delta V shows the maximum Delta V for the given speeds and weights assuming a dead center impact. For special crash investigation purposes, the last two outputs should be essentially ignored.

**Use:** The TRC uses this program on nonaxial collisions involving two vehicles to vary the *"less established inputs"* in order to determine what theoretical affect these changes have on our field observed PDOFs. The most solid input is the weights of the respective vehicles. Even though the cargo weight is rarely accurately known, its order of magnitude is such that in the vast majority of crashes its affect is minor. The next solid inputs are the vehicle's heading angle and slip angle. In most cases these are fairly well known from the available physical evidence. The least solid input is the vehicle's speed. The submitted iterations show the inputs and what variations to those inputs that the TRC took into consideration. The PDOF outcomes are then compared with our field observed PDOF and adjustments are made, if necessary, in our final coding.

**Purpose:** This program is but one more tool in the hands of a researcher aimed at providing the best data.

**Appendix D:**

**NASS CDS ACCIDENT FORM**



## ACCIDENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9521

### IDENTIFICATION

3. Number of General Vehicle  
Forms Submitted

02

4. Date of Accident  
(Month, Day, Year)

4 11 95

5. Time of Accident

0745

Code reported military time of accident.

NOTE: Midnight = 2400  
Unknown = 9999

### SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS15-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6.      SS15 Administrative Use

0

7.      SS16 Pedestrian Crash Data Study  
(Data for this special study available  
in a separate file.)

0

8.      SS17 Impact Fires

0

9.      SS18 Unsafe Driver Actions

0

10.      SS19                     

0

### NUMBER OF EVENTS

11. Number of Recorded Events  
in This Accident

02

Code the number of events which occurred  
in this accident.

### ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object in the right columns.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
--------------------------------------	-------------------	---------------------	------------------------------	--	---------------------	------------------------------

12. <u>0</u> <u>1</u>	13. <u>01</u>	14. <u>20</u>	15. <u>F</u>	16. <u>02</u>	17. <u>03</u>	18. <u>L</u>
-----------------------	---------------	---------------	--------------	---------------	---------------	--------------

19. <u>0</u> <u>2</u>	20. <u>01</u>	21. <u>20</u>	22. <u>L</u>	23. <u>02</u>	24. <u>03</u>	25. <u>L</u>
-----------------------	---------------	---------------	--------------	---------------	---------------	--------------

26. <u>0</u> <u>3</u>	27. <u>    </u>	28. <u>    </u>	29. <u>    </u>	30. <u>    </u>	31. <u>    </u>	32. <u>    </u>
-----------------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------

33. <u>0</u> <u>4</u>	34. <u>    </u>	35. <u>    </u>	36. <u>    </u>	37. <u>    </u>	38. <u>    </u>	39. <u>    </u>
-----------------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------

40. <u>0</u> <u>5</u>	41. <u>    </u>	42. <u>    </u>	43. <u>    </u>	44. <u>    </u>	45. <u>    </u>	46. <u>    </u>
-----------------------	-----------------	-----------------	-----------------	-----------------	-----------------	-----------------

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

## CODES FOR CLASS OF VEHICLE

- |   |   |
|---|---|
| <p>(00) Not a motor vehicle</p> <p>(01) Subcompact/mini (wheelbase &lt; 254 cm)</p> <p>(02) Compact (wheelbase ≥ 254 but &lt; 265 cm)</p> <p>(03) Intermediate (wheelbase ≥ 265 but &lt; 278 cm)</p> <p>(04) Full size (wheelbase ≥ 278 but &lt; 291 cm)</p> <p>(05) Largest (wheelbase ≥ 291 cm)</p> <p>(09) Unknown passenger car size</p> <p>(14) Compact utility vehicle</p> <p>(15) Large utility vehicle (≤ 4,500 kgs GVWR)</p> <p>(16) Utility station wagon (≤ 4,500 kgs GVWR)</p> <p>(19) Unknown utility type</p> <p>(20) Minivan (≤ 4,500 kgs GVWR) <i>CV</i></p> <p>(21) Large van (≤ 4,500 kgs GVWR)</p> <p>(24) Van Based school bus (≤ 4,500 kgs GVWR)</p> <p>(28) Other van type (≤ 4,500 kgs GVWR)</p> <p>(29) Unknown van type (≤ 4,500 kgs GVWR)</p> <p>(30) Compact pickup truck (≤ 4,500 kgs GVWR)</p> | <p>(31) Large pickup truck (≤ 4,500 kgs GVWR)</p> <p>(38) Other pickup truck (≤ 4,500 kgs GVWR)</p> <p>(39) Unknown pickup truck type (≤ 4,500 kgs GVWR)</p> <p>(45) Other light truck (≤ 4,500 kgs GVWR)</p> <p>(48) Unknown light truck type (≤ 4,500 kgs GVWR)</p> <p>(49) Unknown light vehicle type</p> <p>(50) School bus (excludes van based)(&gt; 4,500 kgs GVWR)</p> <p>(58) Other bus (&gt; 4,500 kgs GVWR)</p> <p>(59) Unknown bus type</p> <p>(60) Truck (&gt; 4,500 kgs GVWR)</p> <p>(67) Tractor without trailer</p> <p>(68) Tractor-trailer(s)</p> <p>(78) Unknown medium/heavy truck type</p> <p>(79) Unknown light/medium/heavy truck type</p> <p>(80) Motored cycle</p> <p>(90) Other vehicle</p> <p>(99) Unknown</p> |
|---|---|
- v2: 106.0 → 269*

## CODES FOR GENERAL AREA OF DAMAGE (GAD)

- |  |   |  |  |
|--|---|--|--|
| <p>CDS APPLICABLE<br/>AND OTHER<br/>VEHICLES</p> | <p>(O) Not a motor vehicle</p> <p>(N) Noncollision</p> <p>(F) Front</p> | <p>(R) Right side</p> <p>(L) Left side</p> <p>(B) Back</p> | <p>(T) Top</p> <p>(U) Undercarriage</p> <p>(9) Unknown</p> |
|--|---|--|--|
- 
- |  |   |  |  |
|--|---|--|--|
| <p>TDC<br/>APPLICABLE<br/>VEHICLES</p> | <p>(O) Not a motor vehicle</p> <p>(N) Noncollision</p> <p>(F) Front</p> <p>(R) Right side</p> | <p>(L) Left side</p> <p>(B) Back of unit with cargo area<br/>(rear of trailer or straight truck)</p> <p>(D) Back (rear of tractor)</p> | <p>(C) Rear of cab</p> <p>(V) Front of cargo area</p> <p>(T) Top</p> <p>(U) Undercarriage</p> <p>(9) Unknown</p> |
|--|---|--|--|

## CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

- |  |  |
|--|--|
| <p>(01-30) — Vehicle Number</p> <p>Noncollision</p> <p>(31) Overturn — rollover (excludes end-over-end)</p> <p>(32) Rollover — end-over-end</p> <p>(33) Fire or explosion</p> <p>(34) Jackknife</p> <p>(35) Other intraunit damage (specify): _____</p> <p>(36) Noncollision injury</p> <p>(38) Other noncollision (specify): _____</p> <p>(39) Noncollision — details unknown</p> <p>Collision With Fixed Object</p> <p>(41) Tree (≤ 10 cm in diameter)</p> <p>(42) Tree (&gt; 10 cm in diameter)</p> <p>(43) Shrubbery or bush</p> <p>(44) Embankment</p> <p>(45) Breakaway pole or post (any diameter)</p> <p>Nonbreakaway Pole or Post</p> <p>(50) Pole or post (≤ 10 cm in diameter)</p> <p>(51) Pole or post (&gt; 10 cm but ≤ 30 cm in diameter)</p> <p>(52) Pole or post (&gt; 30 cm in diameter)</p> <p>(53) Pole or post (diameter unknown)</p> <p>(54) Concrete traffic barrier</p> <p>(55) Impact attenuator</p> <p>(56) Other traffic barrier (includes guardrail)<br/>(specify): _____</p> | <p>(57) Fence</p> <p>(58) Wall</p> <p>(59) Building</p> <p>(60) Ditch or culvert</p> <p>(61) Ground</p> <p>(62) Fire hydrant</p> <p>(63) Curb</p> <p>(64) Bridge</p> <p>(68) Other fixed object (specify): _____</p> <p>(69) Unknown fixed object</p> <p>Collision with Nonfixed Object</p> <p>(70) Passenger car, light truck, van, or other vehicle not in-transport</p> <p>(71) Medium/heavy truck or bus not in-transport</p> <p>(72) Pedestrian</p> <p>(73) Cyclist or cycle</p> <p>(74) Other nonmotorist or conveyance</p> <p>(75) Vehicle occupant</p> <p>(76) Animal</p> <p>(77) Train</p> <p>(78) Trailer, disconnected in transport</p> <p>(79) Object fell from vehicle in-transport</p> <p>(88) Other nonfixed object (specify): _____</p> <p>(89) Unknown nonfixed object</p> <p>(98) Other event (specify): _____</p> <p>(99) Unknown event or object</p> |
|--|--|

**Appendix E:**

**NASS CDS VEHICLE FORMS: CASE VEHICLE**



## GENERAL VEHICLE FORM

1. Primary Sampling Unit Number 10

2. Case Number - Stratum 9521

3. Vehicle Number 01

### VEHICLE IDENTIFICATION

4. Vehicle Model Year 96  
Code the last two digits of the model year  
(99) Unknown

5. Vehicle Make (specify): Dodge 07

Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown

6. Vehicle Model (specify): CARAVAN LE 442

Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown

7. Body Type 20

Note: Applicable codes may be found on  
the back of this page.

8. Vehicle Identification Number

LB4GP54R4TB

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Left justify; Slash zeros and letter Z (0 and-Z)

No VIN—Code all zeros Unknown—Code all nines

9. Vehicle Special Use (This Trip) 0

(0) No special use

(1) Taxi

(2) Vehicle used as school bus

(3) Vehicle used as other bus

(4) Military

(5) Police

(6) Ambulance

(7) Fire truck or car

(8) Other (specify): \_\_\_\_\_

(9) Unknown

### OFFICIAL RECORDS

10. Police Reported Vehicle Disposition 1

(0) Not towed due to vehicle damage

(1) Towed due to vehicle damage

(9) Unknown

11. Police Reported Travel Speed 999

Code to the nearest kmph (NOTE: 000 means  
less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

\_\_\_\_ mph X 1.6093 = \_\_\_\_ kmph

12. Speed Limit 072

(000) No statutory limit

Code posted or statutory speed limit  
in kmph

(999) Unknown

45 mph X 1.6093 = 72 kmph

through  
construction  
zone

13. Police Reported Alcohol Presence For Driver 0

(0) No alcohol present

(1) Yes alcohol present

(7) Not reported

(8) No driver present

(9) Unknown

14. Alcohol Test Result For Driver 96

Code actual value (decimal implied  
before first digit—0.xx)

(95) Test refused

(96) None given

(97) AC test performed, results unknown

(98) No driver present

(99) Unknown

Source: PAR

15. Police Reported Other Drug Presence For Driver 0

(0) No other drug(s) present

(1) Yes other drug(s) present

(7) Not reported

(8) No driver present

(9) Unknown

16. Other Drug Specimen Test Result For Driver 0

(0) No specimen test given

(1) Drug(s) not found in specimen

(2) Drug(s) found in specimen, (specify): \_\_\_\_\_

(3) Specimen test given, results unknown or not  
obtained

(8) No driver present

(9) Unknown if specimen test given

17. Driver's Zip Code [REDACTED]

(00001) Driver not a resident of U.S. or territories

Code actual 5-digit zip code

(99998) No driver present

(99999) Unknown

18. Driver's Race/Ethnic Origin 1

(1) White (non-Hispanic)

(2) Black (non-Hispanic)

(3) White (Hispanic)

(4) Black (Hispanic)

(5) American Indian, Eskimo or Aleut

(6) Asian or Pacific Islander

(7) Other (specify): \_\_\_\_\_

(8) No driver present

(9) Unknown



## CODES FOR BODY TYPE

### CDS APPLICABLE VEHICLES

#### *Automobiles*

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): \_\_\_\_\_

- (09) Unknown automobile type

#### *Automobile Derivatives*

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

#### *Utility Vehicles (≤ 4,500 kgs GVWR)*

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

#### *Van Based Light Trucks (≤ 4,500 kgs GVWR)*

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van (≤ 4,500 kgs GVWR)
- (23) Van based motorhome (≤ 4,500 kgs GVWR)
- (24) Van based school bus (≤ 4,500 kgs GVWR)
- (25) Van based other bus (≤ 4,500 kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): \_\_\_\_\_
- (29) Unknown van type

#### *Light Conventional Trucks (Pickup style cab, ≤ 4,500 kgs GVWR)*

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

#### *Other Light Trucks (≤ 4,500 kgs GVWR)*

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

### OTHER VEHICLES

#### *Buses (Excludes Van Based)*

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): \_\_\_\_\_
- (59) Unknown bus type

#### *Medium/Heavy Trucks (> 4,500 kgs GVWR)*

- (60) Step van (> 4,500 kgs GVWR)
- (61) Single unit straight truck (4,500 kgs < GVWR ≤ 8,850 kgs)
- (62) Single unit straight truck (8,850 kgs < GVWR ≤ 12,000 kgs)
- (63) Single unit straight truck (> 12,000 kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

#### *Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)*

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): \_\_\_\_\_
- (89) Unknown motored cycle type

#### *Other Vehicles*

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type

**PRECRAASH ENVIRONMENTAL DATA**

19. Relation To Interchange Or Junction 2  
 (0) Non-interchange area and non-junction  
 (1) Interchange area related

*Non-Interchange junctions*

- (2) Intersection related  
 (3) Driveway, alley access related  
 (4) Other junction (specify) \_\_\_\_\_

(5) Unknown type of junction \_\_\_\_\_

(9) Unknown

20. Trafficway Flow 0  
 (0) Not physically divided (two way traffic)  
 (1) Divided trafficway-median strip without positive barrier  
 (2) Divided trafficway-median strip with positive barrier  
 (3) One way traffic  
 (9) Unknown

21. Number Of Travel Lanes 3  
 (1) One  
 (2) Two  
 (3) Three  
 (4) Four  
 (5) Five  
 (6) Six  
 (7) Seven or more  
 (9) Unknown

22. Roadway Alignment 1  
 (1) Straight  
 (2) Curve right  
 (3) Curve left  
 (9) Unknown

23. Roadway Profile 4  
 (1) Level  
 (2) Uphill grade (> 2%)  
 (3) Hill crest  
 (4) Downhill grade (> 2%)  
 (5) Sag  
 (9) Unknown

24. Roadway Surface Type 2  
 (1) Concrete  
 (2) Bituminous (asphalt)  
 (3) Brick or block  
 (4) Slag, gravel, or stone  
 (5) Dirt  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

25. Roadway Surface Condition 2

- (1) Dry  
 (2) Wet  
 (3) Snow or slush  
 (4) Ice  
 (5) Sand, dirt, or oil  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

26. Light Conditions 1

- (1) Daylight  
 (2) Dark  
 (3) Dark, but lighted  
 (4) Dawn  
 (5) Dusk  
 (9) Unknown

27. Atmospheric Conditions 1

- (0) No adverse atmospheric-related driving conditions  
 (1) Rain  
 (2) Sleet/hail  
 (3) Snow  
 (4) Fog  
 (5) Rain and fog  
 (6) Sleet and fog  
 (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): \_\_\_\_\_  
 (9) Unknown

28. Traffic Control Device 0

- (0) No traffic control(s)  
 (1) Traffic control signal (not RR crossing)

*Regulatory*

- (2) Stop sign  
 (3) Yield sign  
 (4) School zone sign  
 (5) Other regulatory sign (specify): \_\_\_\_\_

- (6) Warning sign (not RR crossing)  
 (7) Unknown sign  
 (8) Miscellaneous/other controls including RR controls (specify): \_\_\_\_\_

(9) Unknown

29. Traffic Control Device Functioning 0

- (0) No traffic control device  
 (1) Traffic control device not functioning (specify): \_\_\_\_\_  
 (2) Traffic control device functioning properly  
 (9) Unknown

**PRECRASH DRIVER RELATED DATA****30. Driver's Distraction/Inattention To Driving** 01  
(Prior To Recognition Of Critical Event)

- (00) No driver present  
 (01) Attentive or not distracted  
 (02) Looked but did not see

*Distractions*

(03) By other occupant(s), (specify): \_\_\_\_\_

(04) By moving object in vehicle (specify): \_\_\_\_\_

(05) While talking or listening to cellular phone  
(specify location and type of phone): \_\_\_\_\_(06) While dialing cellular phone (specify location  
and type of phone): \_\_\_\_\_

(07) While adjusting climate controls

(08) While adjusting radio, cassette, CD (specify): \_\_\_\_\_

(09) While using other device/object in vehicle  
(specify): \_\_\_\_\_

(10) Sleepy or fell asleep

(11) Distracted by outside person, object, or event  
(specify): \_\_\_\_\_

(12) Eating or drinking

(13) Smoking related

(97) Distracted/inattentive, details unknown

(98) Other, distraction (specify): \_\_\_\_\_

(99) Unknown

**31. Pre-Event Movement** 01  
(Prior to Recognition of Critical Event)

- (00) No driver present  
 (01) Going straight  
 (02) Decelerating in traffic lane  
 (03) Accelerating in traffic lane  
 (04) Starting in traffic lane  
 (05) Stopped in traffic lane  
 (06) Passing or overtaking another vehicle  
 (07) Disabled or parked in travel lane  
 (08) Leaving a parking position  
 (09) Entering a parking position  
 (10) Turning right  
 (11) Turning left  
 (12) Making a U-turn  
 (13) Backing up (other than for parking position)  
 (14) Negotiating a curve  
 (15) Changing lanes  
 (16) Merging  
 (17) Successful avoidance maneuver to a previous  
critical event  
 (97) Other (specify): \_\_\_\_\_

(99) Unknown

**32. Critical Precrash Event** 66  
*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire  
 (02) Stalled engine  
 (03) Disabling vehicle failure (e.g., wheel fell off)  
(specify): \_\_\_\_\_  
 (04) Non-disabling vehicle problem (e.g., hood flew  
up) (specify): \_\_\_\_\_  
 (05) Poor road conditions (puddle, pot hole, ice, etc.)  
(specify): \_\_\_\_\_  
 (06) Traveling too fast for conditions  
 (08) Other cause of control loss (specify): \_\_\_\_\_  
 (09) Unknown cause of control loss

*This Vehicle Traveling*

- (10) Over the lane line on left side of travel lane  
 (11) Over the lane line on right side of travel lane  
 (12) Off the edge of the road on the left side  
 (13) Off the edge of the road on the right side  
 (14) End departure  
 (15) Turning left at intersection  
 (16) Turning right at intersection  
 (17) Crossing over (passing through) intersection  
 (18) This vehicle decelerating  
 (19) Unknown travel direction

*Other Motor Vehicle In Lane*

- (50) Other vehicle stopped  
 (51) Traveling in same direction with lower steady  
speed  
 (52) Traveling in same direction while decelerating  
 (53) Traveling in same direction with higher speed  
 (54) Traveling in opposite direction  
 (55) In crossover  
 (56) Backing  
 (59) Unknown travel direction of other motor  
vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*

- (60) From adjacent lane (same direction)—over left  
lane line  
 (61) From adjacent lane (same direction)—over right  
lane line  
 (62) From opposite direction—over left lane line  
 (63) From opposite direction—over right lane line  
 (64) From parking lane  
 (65) From crossing street, turning into same  
direction  
 (66) From crossing street, across path  
 (67) From crossing street, turning into opposite  
direction  
 (68) From crossing street, intended path not known  
 (70) From driveway, turning into same direction  
 (71) From driveway, across path  
 (72) From driveway, turning into opposite direction  
 (73) From driveway, intended path not known  
 (74) From entrance to limited access highway  
 (78) Encroachment by other vehicle—details  
unknown

*Pedestrian, Pedalcyclist, or Other Nonmotorist*

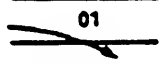



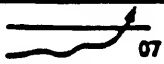
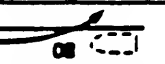



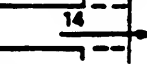
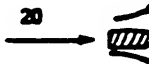
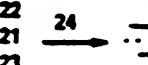
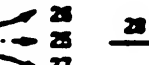
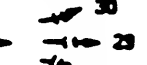




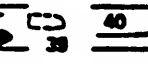
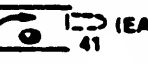
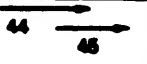
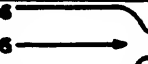

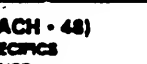
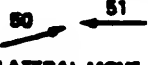
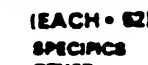

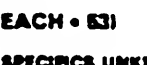

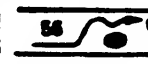

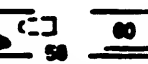
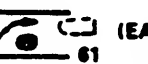








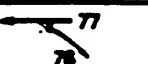






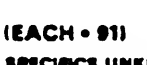
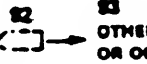

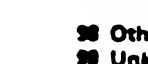


- (80) Pedestrian in roadway  
 (81) Pedestrian approaching roadway  
 (82) Pedestrian—unknown location  
 (83) Pedalcyclist or other nonmotorist in roadway  
(specify): \_\_\_\_\_  
 (84) Pedalcyclist or other nonmotorist approaching  
roadway, (specify): \_\_\_\_\_  
 (85) Pedalcyclist or other nonmotorist—unknown  
location (specify): \_\_\_\_\_

*Object or Animal*

- (87) Animal in roadway  
 (88) Animal approaching roadway  
 (89) Animal—unknown location  
 (90) Object in roadway  
 (91) Object approaching roadway  
 (92) Object—unknown location  
 (98) Other critical precrash event (specify): \_\_\_\_\_  
 (99) Unknown

<p>33. Attempted Avoidance Maneuver <u>09</u></p> <p>(00) No driver present (01) No avoidance maneuver (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (98) Other action (specify): _____ (99) Unknown</p> <p>34. Pre-Impact Stability <u>1</u></p> <p>(0) No driver present (1) Tracking (2) Skidding longitudinally—rotation less than 30 degrees (3) Skidding laterally—clockwise rotation (4) Skidding laterally—counterclockwise rotation (7) Other vehicle loss-of-control (specify): _____ (9) Precrash stability unknown</p>	<p>35. Pre-Impact Location <u>1</u></p> <p>(0) No driver present (1) Stayed in original travel lane (2) Stayed on roadway but left original travel lane (3) Stayed on roadway, not known if left original travel lane (4) Departed roadway (5) Remained off roadway (6) Returned to roadway (7) Entered roadway (9) Unknown</p> <p>36. Accident Type <u>88</u></p> <p>(Note: Applicable codes on back of this page) (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify): _____ (99) Unknown</p>
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**STOP HERE IF GV07 DOES NOT EQUAL 01 - 49**

Category	Configuration	ACCIDENT TYPES (includes intent)				
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH.. PED.. ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH.. PED.. ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 24, 25, 27	 25 OVERT. 26, 27, 31	 30 SPECIFICS OTHER	 31 SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	 41 SPECIFICS OTHER
	F Sideswipe Angle	 44 SPECIFICS OTHER	 45 SPECIFICS OTHER	 46 SPECIFICS OTHER	 47 SPECIFICS OTHER	(EACH - 42) (EACH - 43) (EACH - 48) (EACH - 49) SPECIFICS UNKNOWN
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	 51 SPECIFICS OTHER	 52 SPECIFICS UNKNOWN	 53 SPECIFICS UNKNOWN	(EACH - 62) (EACH - 63) SPECIFICS UNKNOWN
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	 61 SPECIFICS OTHER
	I Sideswipe Angle	 64 LATERAL MOVE	 65 SPECIFICS OTHER	 66 SPECIFICS UNKNOWN	 67 SPECIFICS UNKNOWN	(EACH - 62) (EACH - 63) (EACH - 66) (EACH - 67) SPECIFICS UNKNOWN
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 70 INITIAL SAME DIRECTIONS	 72 SPECIFICS OTHER	 73 SPECIFICS UNKNOWN	(EACH - 74) (EACH - 75) SPECIFICS UNKNOWN
	K Turn Into Path	 77 TURN INTO SAME DIRECTION	 78 TURN INTO OPPOSITE DIRECTIONS	 80 SPECIFICS OTHER	 81 SPECIFICS UNKNOWN	(EACH - 84) (EACH - 85) SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 87 SPECIFICS OTHER	 88 SPECIFICS UNKNOWN	 89 SPECIFICS UNKNOWN	 90 SPECIFICS UNKNOWN	(EACH - 90) (EACH - 91) SPECIFICS UNKNOWN
VI Miscellaneous	M Backing Etc	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	 94 Other Accident Type	 95 Unknown Accident Type	 96 No Impact

## OCCUPANT RELATED

37. Driver Presence in Vehicle 1  
 (0) Driver not present  
 (1) Driver present  
 (9) Unknown
38. Number of Occupants This Vehicle 02  
 (00-96) Code actual number of occupants for this vehicle  
 (97) 97 or more  
 (99) Unknown
39. Number of Occupant Forms Submitted 02

## AIR BAG RELATED

40. Is this an AOPS Vehicle? 1  
 (0) No (includes unknown)  
 (1) Yes - researcher determined  
 (2) VIN determined air bag system  
 (3) VIN determined automatic (passive) belts  
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 6  
 (0) Not equipped or not available  
 (1) No air bags deployed  
*Single Air Bag Vehicle*  
 (2) Driver air bag deployed  
 (3) Driver air bag, unknown if deployed  
*Multiple Air Bag Vehicle*  
 (4) Driver side only deployed  
 (5) Passenger side only deployed  
 (6) Driver and passenger side deployed  
 (7) Driver and passenger side unknown if deployed  
 (8) Air bag(s) deployed, details unknown  
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 0  
 (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

Specify type of "other" air bag present: \_\_\_\_\_

## VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1790  
3956 Code weight to nearest 10 kilograms.  
 (045) Less than 450 kilograms  
 (610) 6,100 kilograms or more  
 (999) Unknown  
3956 lbs X .4536 = 1794 kgs

Source: \_\_\_\_\_

44. Vehicle Cargo Weight 0000  
2 Code weight to nearest 10 kilograms.  
 (000) Less than 5 kilograms  
 (450) 4,500 kilograms or more  
 (999) Unknown  
2 lbs X .4536 = 2 kgs

Source: Interviewee

## ROLLOVER DATA

45. Rollover 00  
 (00) No rollover (no overturning)  
*Rollover (primarily about the longitudinal axis)*  
 (01-16) Code the number of quarter turns  
 (17) Rollover, 17 or more quarter turns (specify): \_\_\_\_\_  
 (98) Rollover--end-over-end (i.e., primarily about the lateral axis)  
 (99) Rollover (overturn), details unknown
46. Rollover Initiation Type 00  
 (00) No rollover  
 (01) Trip-over  
 (02) Flip-over  
 (03) Turn-over  
 (04) Climb-over  
 (05) Fall-over  
 (06) Bounce-over  
 (07) Collision with another vehicle  
 (08) Other rollover initiation type specify): \_\_\_\_\_  
 (98) Rollover--end-over-end  
 (99) Unknown rollover initiation type
47. Location of Rollover Initiation 0  
 (0) No rollover  
 (1) On roadway  
 (2) On shoulder--paved  
 (3) On shoulder--unpaved  
 (4) On roadside or divided trafficway median  
 (8) Rollover--end-over-end  
 (9) Unknown
48. Rollover Initiation Object Contacted 00  
 (Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0  
 (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify): \_\_\_\_\_  
 (6) Non-contact rollover forces (specify): \_\_\_\_\_  
 (8) Rollover--end-over-end  
 (9) Unknown
50. Direction of Initial Roll 0  
 (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (8) Rollover--end-over-end  
 (9) Unknown roll direction

**VERRIDE/UNDERRIDE (THIS VEHICLE)**

51. Front Override/Underride (this Vehicle) 0
52. Rear Override/Underride (this Vehicle) 0
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

*Override (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (1) 1st CDC
- (2) 2nd CDC
- (3) Other not automated CDC (specify): \_\_\_\_\_

*Underride (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (4) 1st CDC
- (5) 2nd CDC
- (6) Other not automated CDC (specify): \_\_\_\_\_

- (7) Medium/heavy truck or bus override (of any configuration)
- (9) Unknown

**HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V**

Values: (000)-(359) Code actual value

- (997) Noncollision
- (998) Impact with object
- (999) Unknown

53. Heading Angle For This Vehicle 035
54. Heading Angle For Other Vehicle 275

**RECONSTRUCTION DATA**

55. Towed Trailing Unit 0
- (0) No towed unit
- (1) Yes—towed trailing unit
- (9) Unknown
56. Documentation of Trajectory Data for This Vehicle 0
- (0) No
- (1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0
- (0) Not collision (for highest delta V) with tree or pole
- (1) Not damaged
- (2) Cracked/sheared
- (3) Tilted < 45 degrees
- (4) Tilted ≥ 45 degrees
- (5) Uprooted tree
- (6) Separated pole from base
- (7) Pole replaced
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V**

58. Basis for Total (Resultant) Delta V (highest) 11

(00) No vehicle inspection

*Delta V Calculated*

- (01) Reconstruction program -damage only routine
- (02) Reconstruction program -damage and trajectory routine
- (03) Missing vehicle algorithm

*Delta V Not Calculated*

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

*All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.*

- (05) Rollover
- (06) Other non-horizontal forces
- (07) Sideswipe type damage
- (08) Severe override
- (09) Yielding object
- (10) Overlapping damage
- (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify): Case Vehicle in process of repair. Side impact V2
- (98) Other, (specify): \_\_\_\_\_

## COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

999

\_\_\_\_\_ Nearest kmph (highest)

\_\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (999) Unknown

60. Longitudinal Component of Delta V

Highest

+ 999  
- 999

\_\_\_\_\_ Nearest kmph (highest)

\_\_\_\_\_ Nearest kmph (secondary)

(NOTE: \_\_000 means greater than  
 -0.5 kmph and less than +0.5 kmph)  
 (±160) ±159.5 kmph and above  
 (\_\_999) Unknown

61. Lateral Component of Delta V

Highest

+ 999  
- 999

\_\_\_\_\_ Nearest kmph (highest)

\_\_\_\_\_ Nearest kmph (secondary)

(NOTE: \_\_000 means greater than -0.5 kmph  
 and less than +0.5 kmph)  
 (±160) ±159.5 kmph and above  
 (\_\_999) Unknown

62. Energy Absorption

999.9 0 0

\_\_\_\_\_ Nearest 100 joules (highest)

\_\_\_\_\_ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)  
 (9997) 999,650 joules or more  
 (9999) Unknown

63. Impact Speed

Highest

998

\_\_\_\_\_ Nearest kmph (highest)

\_\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (998) Trajectory algorithm not run  
 (999) Unknown

## DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

- (0) No reconstruction 0  
 (1) Collision fits model — results appear reasonable  
 (2) Collision fits model — results appear high  
 (3) Collision fits model — results appear low  
 (4) Borderline reconstruction — results appear reasonable

## OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

999

\_\_\_\_\_ Nearest kmph (highest)

\_\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (999) Unknown

IS MISSING VEHICLE ALGORITHM APPLICABLE FOR THIS VEHICLE? [ ] YES [X] NO

IF YES: IS A COMPLETED PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO



ESTIMATED DELTA V	VEHICLE INSPECTION
<p>66. Estimated Highest Delta V (Researcher Determined) <u>3</u></p> <p>(0) Reconstruction Delta V coded</p> <p><i>Estimated Delta V</i></p> <p>(1) Less than 10 kmph</p> <p>(2) <math>\geq 10</math> kmph but <math>&lt; 25</math> kmph</p> <p>(3) <math>\geq 25</math> kmph but <math>&lt; 40</math> kmph</p> <p>(4) <math>\geq 40</math> kmph but <math>&lt; 55</math> kmph</p> <p>(5) <math>\geq 55</math> kmph</p> <p><i>Other estimates of damage severity</i></p> <p>(6) Minor</p> <p>(7) Moderate</p> <p>(8) Severe</p> <p>(9) Unknown</p>	<p>67. Type of Vehicle Inspection <u>2</u></p> <p>(0) No inspection</p> <p>(1) Vehicle fully repaired-no damage evident</p> <p>(2) Partial inspection (specify): <u>Being Repaired</u></p> <p>(3) Complete inspection</p>

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67=0), \*\*\*

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

## EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM**

1. Primary Sampling Unit Number	<u>1</u> <u>0</u>	3. Vehicle Number	<u>0</u> <u>1</u>
2. Case Number - Stratum	<u>9</u> <u>5</u> <u>2</u> <u>1</u>		

## VEHICLE IDENTIFICATION

VIN 1B4GP54R4TB Model Year 96  
Vehicle Make (specify): DODGE Vehicle Model (specify): Grand CARAVAN LE

## LOCATOR

Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
01	Whole front end	BC to BC	UNK - C1?
02	Direct starts 52cm forward of LR Axle.	65cm forward LR Axle	

### CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

# ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase 119.3 inches x 2.54 = 303 cm  
 Overall Length 199.6 inches x 2.54 = 507 cm  
 Maximum Width 75.6 inches x 2.54 = 192 cm  
 Curb Weight 3,956 pounds x 0.4536 = 1,794.4 kg  
 Average Track 63.5 inches x 2.54 = 161 cm  
 Front Overhang        inches x 2.54 =        cm  
 Rear Overhang        inches x 2.54 =        cm  
 Undeformed End Width        inches x 2.54 =        cm  
 Engine Size: cyl/disl.        cc x 0.001 = 3.3 L  
 V6        CID x 0.0164 =        L

4-wheel antilock brakes

Shipping Weight 3,856  
 Adjustment 100  
3,956

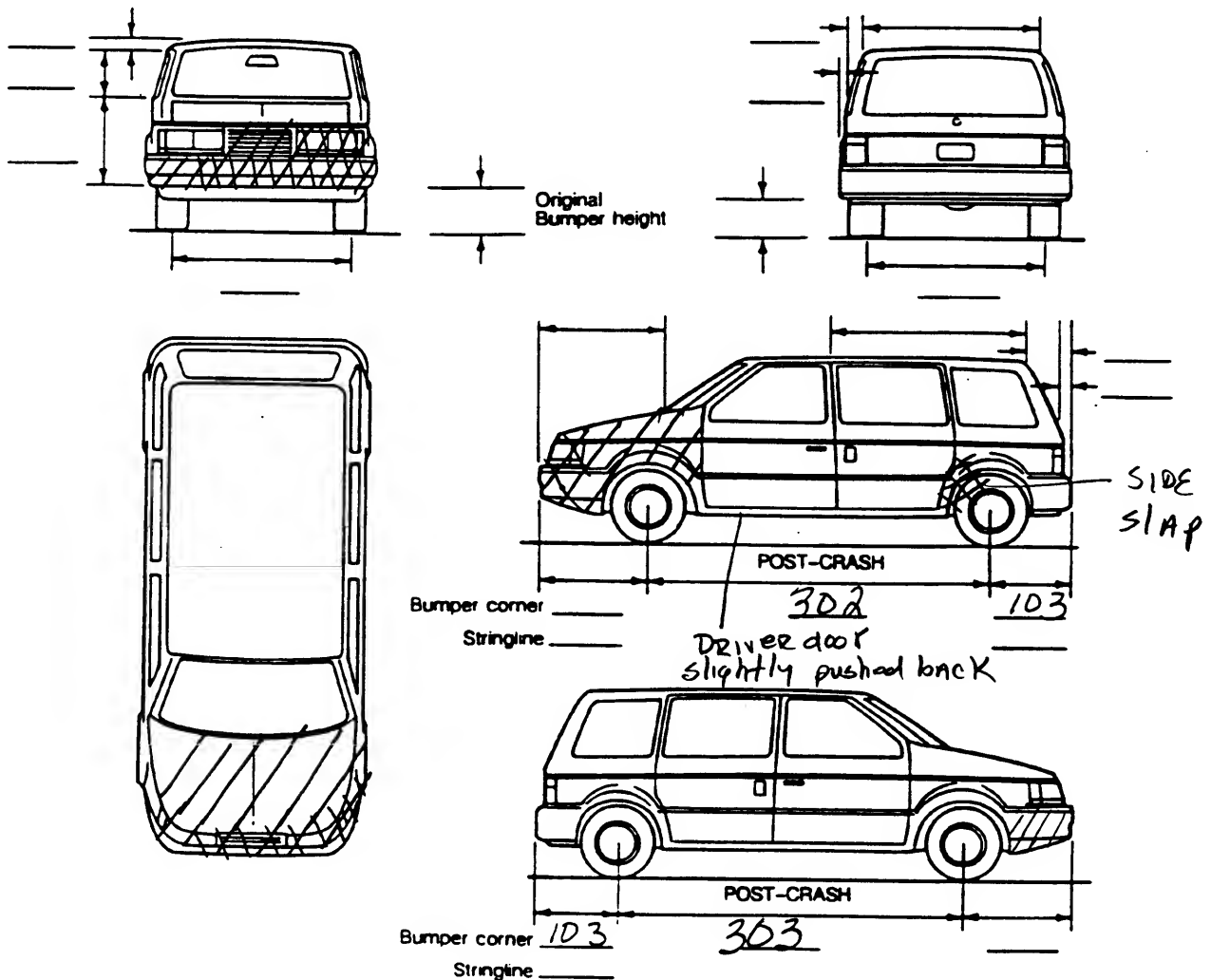
## SPECIAL CRASH INVESTIGATION ADDENDUM

Submodel Designation: {specify} LE Color: {specify} Repair Cost: \$  
 Transmission: {circle} Automatic Manual Speed: 3-speed | 4-speed | 5-speed | Other:  
 Steering: {circle} Power-assisted Manual Type: rack-and-pinion worm-and-gear | Other:  
 (please describe):  
 Brakes: {circle} Power-assisted Manual Type: 4-wheel disc | 4-wheel drum | 4-wheel hydraulic  
ABS front disc, rear drum | Other:  
 Observed Defects: {specify}  
 Fleet Type: {circle} Private vehicle | Rental vehicle | Leased vehicle | Commercial vehicle | Other  
 (please describe):

## VEHICLE DAMAGE SKETCH

<b>TIRE—WHEEL DAMAGE</b> a. Rotation physically restricted RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		b. Tire deflated RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		<b>ORIGINAL SPECIFICATIONS</b> Wheelbase <u>303</u> cm Overall Length <u>507</u> cm Maximum Width <u>192</u> cm Curb Weight <u>1794</u> kg Average Track <u>161</u> cm Front Overhang _____ cm Rear Overhang _____ cm Undeformed End Width _____ cm Engine Size: cyl./displ. <u>3.3</u> L		<b>WHEEL STEER ANGLES</b> (For locked front wheels or displaced rear axles only) RF ± _____ ° LF ± _____ ° RR ± _____ ° LR ± _____ ° Within ± 5 degrees	
<b>TYPE OF TRANSMISSION</b> <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic				<b>DRIVE WHEELS</b> <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD			
				Approximate Cargo Weight _____ kg			

## MEASUREMENTS IN CENTIMETERS



NOTES Sketch new penmeter and cross hatch direct damage and angle hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

## BRANHAM AUTOMOBILE REFERENCE BOOK-PASSENGER CAR SECTION

## DODGE Division Chrysler Corp.

Type of Body Pass. Cap.	Model	Dimensions Inches			Ship. Wt.	Tax H.P.	Factory List Price	Factory Del'd Price
		Wheel Base	Lt. x	Wt. x Ht.				
7-PS 4-dr MiniVan SE w/24T Grand Caravan FWD	NSHK52	113.3"	186.3" x	75.6" x 68.5"	3598	30.66	19,375	19,935
7-PS 4-dr MiniVan w/24T	NSKL53	119.3"	199.6" x	75.6" x 68.5"	3691	30.66	18,850	19,410
7-PS 4-dr MiniVan SE Grand Caravan AWD	NSKH53	119.3"	199.6" x	75.6" x 68.5"	3706	30.66		
7-PS 4-dr MiniVan SE		119.3"	199.6" x	75.6" x 68.5"	4133	30.66		

**1996 Dodge Caravan V6 cyl 3.3 liter OHV SMPI Gas Engine(EGA)(12 valve)**

Bore &amp; Stroke 3.66"x3.19"; Tax H.P. 32.15; SAE H.P. 158@4850; Torque 203@3250; 201.5 cu.in., 3301 cc

Auto. Trans. 4-speed; EPA Mileage Estimate (FWD) 18/23 (AWD)

## Caravan Sport FWD

7-PS 5-dr MiniVan SE w/28C Caravan FWD	NSKH52	113.3"	186.3" x	75.6" x 68.5"	3776	32.15	21,205	21,765
7-PS 5-dr MiniVan LE w/28J	NSKP52	113.3"	186.3" x	75.6" x 68.5"	3776	32.15	23,190	23,750
7-PS 5-dr MiniVan ES w/28M	NSKP52	113.3"	186.3" x	75.6" x 68.5"	3776	32.15	24,550	25,110
Grand Caravan FWD								
7-PS 4-dr MiniVan SE w/28B	NSKH53	119.3"	199.6" x	75.6" x 68.5"	3856	32.15	20,880	21,440
7-PS 4-dr MiniVan LE w/28J	NSKP53	119.3"	199.6" x	75.6" x 68.5"	3856	32.15	23,680	24,240
7-PS 4-dr MiniVan ES w/28M	NSKP53	119.3"	199.6" x	75.6" x 68.5"	4006	32.15	25,490	26,050
Grand Caravan AWD								
7-PS 4-dr MiniVan SE		119.3"	199.6" x	75.6" x 68.5"	4133	32.15		
7-PS 4-dr MiniVan LE		119.3"	199.6" x	75.6" x 68.5"	4252	32.15		

**1996 Dodge Caravan V6 cyl 3.8 liter OHV SMPI Gas Engine(EGH)(12 valve)**

Bore &amp; Stroke 3.779"x3.425"; Tax H.P. 34.27; SAE H.P. 166@4300; Torque 227@3100; 230.5 cu.in., 3778 cc

Auto. Trans. 4-speed; EPA Mileage Estimate (FWD) 17/22 (AWD) 16/21

## Caravan FWD

7-PS 5-dr MiniVan LE w/29K	NSKP52	113.3"	186.3" x	75.6" x 68.5"	3875	34.27	24,185	24,745
7-PS 5-dr MiniVan ES w/29M	NSKP52	113.3"	186.3" x	75.6" x 68.5"	3875	34.27	24,855	25,415
Grand Caravan FWD								
7-PS 4-dr MiniVan LE w/29K	NSKP53	119.3"	199.6" x	75.6" x 68.5"	4158	34.27	24,675	25,235
7-PS 4-dr MiniVan ES w/29M	NSKP53	119.3"	199.6" x	75.6" x 68.5"	4158	34.27	25,795	26,355
Grand Caravan AWD								
7-PS 4-dr MiniVan SE		119.3"	199.6" x	75.6" x 68.5"	4041	34.27		
7-PS 4-dr MiniVan LE		119.3"	199.6" x	75.6" x 68.5"	4158	34.27		

Options Dodge Caravan: Destination Charges-\$560; V6 cyl 3.0 liter SOHC SMPI Gas Engine(EFA) (Base)-\$770; V6 cyl 3.3 liter OHV SMPI Gas Engine(EGA) (SE)-\$815 (LS&SE)-std; V6 cyl 3.8 liter OHV SMPI Gas Engine(EGH) (LE&SE)-\$305; Auto. Trans. 4-speed (Base & SE)-\$200 (LE & ES)-std; Air Conditioning(option code S&A)-\$860 (all others)-std; Sunscreen Glass-\$450 (Sport, LE&SE)-std; Rear Heat/Air Conditioning (Grand)-\$955/1130 (LE&SE)-\$405/470; Speed Control & Tilt Wheel-\$435 w/door locks-\$750 (LE & ES)-std; Power Locks (Base & SE)-\$315 (LE & ES)-std; Keyless Remote Entry (Base & SE)-\$235 (ES)-std; Security Alarm-\$385 (LE&SE)-\$150; Seating (7-PS w/Child Seat (Base)-\$285 Deluxe (SE, LE & LX & Grand)-\$225 w/Quad-\$575 w/Leather-\$890; Wheels (15" AL)-\$370 w/anti-lock Group-\$430; Trailer Tow (Group 2) (Grand LE & ES)-\$445 AWD-\$375; AM/FM Stereo w/cassette (Base)-\$170 (SE, LE & ES)-std w/CD (LE & ES)-\$335; Anti-Lock Brakes (Base & SE)-\$690 (LE & LX & Grand)-\$600; Decor Group (SE)-\$750 (Sport)-\$800; Defroster Rear Window-\$195/230 (Sport)-std; Power Door locks-\$315 (LE&SE)-std; Door Sliding Driver-\$450; Emission (Calif & Mass)-\$105; Paint (Extra Cost)-\$100; Luggage Rack-\$145; Leather Seats (LE & LX)-\$865; Option Pkg Base (22S)-Std (22T)-605 (24T)-\$1375 SE (23A)-std (24A) (Credit)-\$250 (23B)-\$470 (24B)-\$220 (28C)-\$2350 (24D)-\$1710 (28D)-\$2005 (28E)-\$3070 LE (24J)-Std (28K)-\$690 (29K)-\$995 ES (28M)-\$835 (29M)-\$1140 Grand Base FWD (22S)-std (22T)-255 (26T)-\$1025 Grand SE (23A)-std (23B)-\$470 (28B)-\$1285 (28D)-\$2005 Grand LE (28J)-std (28K)-\$690 (29K)-\$995 Grand ES FWD (28M)-\$1285 (29M)-\$1590

**1996 Dodge Intrepid FWD V6 cyl 3.3 liter OHV SMPI Gas Engine(EGB)(12 valve)**

Bore &amp; Stroke 3.661"x3.189"; Tax H.P. 32.17; SAE H.P. 161@5300; Torque 181@3200; 201.5 cu.in., 3300 cc

Auto. Trans. 4-speed; EPA Mileage Estimate 20/28

5-PS 4-dr Sedan w/22C	LHDH41	113.0"	201.7" x	74.4" x 56.3"	3311	32.17	18,445	18,995
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**1996 Dodge Intrepid FWD V6 cyl 3.5 liter SOHC SMPI Gas Engine(EGE)(24 valve)**

Bore &amp; Stroke 3.779"x3.189"; Tax H.P. 34.27; SAE H.P. 214@5850; Torque 221@3100; 214.7 cu.in., 3518 cc

Auto. Trans. 4-speed; EPA Mileage Estimate 18/26

5-PS 4-dr Sedan ES w/26L	LHDP41	113.0"	201.7" x	74.4" x 56.3"	3478	34.27	22,260	22,810
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Options Dodge Intrepid: Destination Charges-\$550; Air Conditioning-std w/Auto Temp Control-\$155; Brakes 4-wheel w/ABS-\$625 (ES)-std; Child Seat-\$100; Console (Overhead)-\$296 ES-\$378; Power Door Locks-\$250; Emission (Calif & Mass)-\$105; Paint (Extra Cost)-\$100 (Bright Metallic)-\$200; MoonRoof Power-\$1015 ES-\$1094/720; AM/FM Stereo (Infinity Spatial) w/cassette-\$350 w/CD-\$600; Driver & Passenger 8-way Power Seats-\$380 w/leather-\$1015; Security Alarm-\$150; Traction Control-\$175; Option Pkg Base (22C)-Std (22D)-\$1235 ES (26L)-Std (26M)-\$1125

**1996 Neon FWD 4 cyl 2.0 liter SOHC SMPFI Gas Engine(ECB)(16 valve)**

Bore &amp; Stroke 3.445"x3.278"; Tax H.P. 18.93; SAE H.P. 132@6000; Torque 129@5000; 121.8 cu.in., 1996 cc

Man. Trans. 5-speed; EPA Mileage Estimate 29/38

**CODES FOR OBJECT CONTACTED**

(99) Unknown event or object

[illegible]

## COLLISION DEFORMATION CLASSIFICATION

## HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>02</u>	6. <u>99</u>	7. <u>9</u>	8. <u>9</u>	9. <u>9</u>	10. <u>9</u>	11. <u>99</u>

## Second Highest Delta "V"

12. <u>02</u>	13. <u>02</u>	14. <u>09</u>	15. <u>L</u>	16. <u>B</u>	17. <u>E</u>	18. <u>W</u>	19. <u>01</u>
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## CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

## HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	22. <u>±D</u>
							+
							-

## Second Highest Delta "V"

23. <u>L</u>	24. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	25. <u>±D</u>
							+
							-

26. Undeformed End Width  
(Coded when highest severity impact is an end plane impact.) 999  
Code to the nearest centimeter  
(250) 250 centimeters or more  
(998) No highest severity end plane impact  
(999) Unknown

27. Direct Damage Width  
(For highest severity impact) 999  
Code to the nearest centimeter  
(250) 250 centimeters or more  
(999) Unknown

28. Original Wheelbase 303  
Code to the nearest centimeter  
(650) 650 centimeters or more  
(999) Unknown  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

29. Original Average Track Width 161  
Code to the nearest centimeter  
(185) 185 centimeters or more  
(999) Unknown  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

<p>30. Are CDCs Documented but Not Coded on The Automated File? <u>0</u></p> <p>(0) No (1) Yes</p> <p>31. Researcher's Assessment of Vehicle Disposition <u>1</u></p> <p>(0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown</p> <p>32. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? <u>0</u></p> <p>(0) No post manufacturer modifications (1) Yes - post manufacturer modifications (specify): _____</p> <p>_____ _____ (Include photograph of CERTIFICATION PLACARD in case report) (9) Unknown if vehicle is modified</p>	<p style="text-align: center;"><b>FUEL SYSTEM</b></p> <p>35. Location of Fuel Tank-1 Filler Cap <u>4</u></p> <p>36. Location of Fuel Tank-2 Filler Cap <u>0</u></p> <p>(0) No fuel tank (1) On back plane (2) Aft of center of the rear wheels (rear axle) on left side plane (3) Aft of center of the rear wheels (rear axle) on right side plane (4) Forward of center of the rear wheels (rear axle) on left side plane (5) Forward of center of the rear wheels (rear axle) on right side plane (6) Over the center of the rear wheels (rear axle) on left side plane (7) Over the center of the rear wheels (rear axle) on right side plane (8) Other (specify): _____ (9) Unknown</p> <p>37. Type of Fuel Tank-1 <u>2</u></p> <p>38. Type of Fuel Tank-2 <u>0</u></p> <p>(0) No fuel tank (electrical vehicle) (1) Metallic (2) Non-metallic (9) Unknown</p>
<p style="text-align: center;"><b>FIRE OCCURRENCE</b></p> <p>33. Fire Occurrence <u>0</u></p> <p>(0) No fire</p> <p>Yes, fire occurred</p> <p>(1) Minor (2) Major (9) Unknown</p> <p>34. Origin of Fire <u>0</u></p> <p>(0) No fire (1) Vehicle exterior (front, side, back, top) (2) Exhaust system (3) Fuel tank (and other fuel retention system parts) (4) Engine compartment (5) Cargo/trunk compartment (6) Instrument panel (7) Passenger compartment area (8) Other location (specify): _____ (9) Unknown</p>	<p>39. Location of Fuel Tank-1 <u>5</u></p> <p>40. Location of Fuel Tank-2 <u>0</u></p> <p>(0) No fuel tank (1) Aft of center of the rear wheels (rear axle) centered (2) Aft of center of the rear wheels (rear axle) left side (3) Aft of center of the rear wheels (rear axle) right side (4) Forward of center of the rear wheels (rear axle) centered (5) Forward of center of the rear wheels (rear axle) left side (6) Forward of center of the rear wheels (rear axle) right side (7) Over center of the rear wheels (rear axle) (8) Other (specify): _____ (9) Unknown</p> <p>41. Damage to Fuel Tank-1 <u>1</u></p> <p>42. Damage to Fuel Tank-2 <u>0</u></p> <p>(0) No fuel tank (1) No damage to fuel tank (2) Deformed, no seam failure (3) Deformed, with a seam failure (4) Punctured (5) Lacerated (ripped) (6) Abraded (scraped) (7) Filler neck separation from the fuel tank (8) Other damage (specify): _____ (9) Unknown</p>



43. Leakage Location of Fuel System-1

1

44. Leakage Location of Fuel System-2

0

- (0) No fuel tank  
(1) No fuel leakage

*Primary Area Of Leakage*

- (2) Tank  
(3) Filler neck  
(4) Cap  
(5) Lines/pump/filter  
(6) Vent/emission recovery  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

45. Fuel Type-1

01

46. Fuel Type-2

00*Single Fuel Type*

- (00) No fuel tank  
(01) Gasoline  
(02) Diesel  
(03) CNG (Compressed Natural Gas)  
(04) LPG (Liquid Petroleum Gas) also known as Propane  
(05) LNG (Liquid Natural Gas)  
(06) Methanol (M100 or M85)  
(07) Ethanol (E100 or E85)  
(08) Other (Hydrogen or others) (specify): \_\_\_\_\_

*Electric Powered or Electric/Solar Powered Vehicles*

- (10) Lead Acid Battery  
(11) Nickel-Iron Battery  
(12) Nickel-Cadmium Battery  
(13) Sodium Metal Chloride Battery  
(14) Sodium Sulfur Battery  
(18) Other (Specify): \_\_\_\_\_

(98) Other Hybrid (specify): \_\_\_\_\_

(99) Unknown fuel type

47. Is This Vehicle Equipped With More Than Two Fuel Tanks?

0

(0) No (one or two tanks only)

*Yes - More Than Two Tanks*

- (1) Yes -- no damage to any tank or filler cap and no fuel system leakage  
(2) Yes -- no damage to any tank or filler cap but there is fuel system leakage (specify leakage location): \_\_\_\_\_  
(3) Yes -- damage to an additional tank or filler cap and there is fuel system leakage (specify the following):  
Type of tank \_\_\_\_\_  
Tank location \_\_\_\_\_  
Filler cap location \_\_\_\_\_  
Tank damage \_\_\_\_\_  
Location of leakage \_\_\_\_\_  
Type of fuel \_\_\_\_\_  
(9) Unknown if more than two tanks

**COMMENTS**

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\*\*\* STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED \*\*\*

(GV10=0)

DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



## INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number 10

2. Case Number - Stratum 9521

3. Vehicle Number 01

### INTEGRITY

4. Passenger Compartment Integrity 00

(00) No integrity loss

Yes, Integrity Was Lost Through

- (01) Windshield
- (02) Door (side)
- (03) Door/hatch (back door)
- (04) Roof
- (05) Roof glass
- (06) Side window
- (07) Rear window (backlight)
- (08) Roof end roof glass
- (09) Windshield and door (side)
- (10) Windshield and roof
- (11) Side end rear window (side window end backlight)
- (12) Windshield and side window
- (13) Door end side window
- (98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 1 8. RR 1 9. TG/H 1

- (0) No door/gate/hatch
- (1) Door/gate/hatch remained closed and operational
- (2) Door/gate/hatch came open during collision
- (3) Door/gate/hatch jammed shut
- (8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

- (1) Door operational (no damage)
- (2) Latch/striker failure due to damage
- (3) Hinge failure due to damage
- (4) Door structure failure due to damage
- (5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
- (6) Latch/striker and hinge failure due to damage
- (8) Other failure (specify):

(9) Unknown

### GLAZING

Type of Window/Windshield Glazing

15. WS 1 16. LF 2 17. RF 2 18. LR 2 19. RR 2  
20. BL 2 21. Roof 0 22. Other 2

- (0) No glazing
- (1) AS-1 — Laminated
- (2) AS-2 — Tempered
- (3) AS-3 — Tempered-tinted (original)
- (4) AS-2 — Tempered-with after market tint
- (5) AS-3 — Tempered-tinted (with additional after market tint)
- (6) AS-14 — Glass/Plastic
- (7) Glazing removed prior to accident
- (8) Other (specify):
- (9) Unknown

Window Precrash Glazing Status

23. WS 1 24. LF 2 25. RF 2 26. LR 2 27. RR 2  
28. BL 1 29. Roof 0 30. Other 2

- (0) No glazing
- (1) Fixed
- (2) Closed
- (3) Partially opened
- (4) Fully opened
- (7) Glazing removed prior to accident
- (9) Unknown

Glazing Damage from Impact Forces

31. WS 1 32. LF 1 33. RF 1 34. LR 1 35. RR 1  
36. BL 1 37. Roof 0 38. Other 1

- (0) No glazing
- (1) No glazing damage from impact forces
- (2) Glazing in place and cracked from impact forces
- (3) Glazing in place and holed from impact forces
- (4) Glazing out-of-place (cracked or not) and not holed from impact forces
- (5) Glazing out-of-place and holed from impact forces
- (6) Glazing disintegrated from impact forces
- (7) Glazing removed prior to accident
- (9) Unknown if damaged

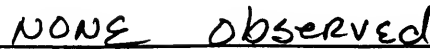
Glazing Damage from Occupant Contact

39. WS 1 40. LF 1 41. RF 1 42. LR 1 43. RR 1  
44. BL 1 45. Roof 0 46. Other 1

- (0) No glazing
- (1) No occupant contact to glazing
- (2) Glazing contacted by occupant but no glazing damage
- (3) Glazing in place and cracked by occupant contact
- (4) Glazing in place and holed by occupant contact
- (5) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
- (6) Glazing out-of-place by occupant contact and holed by occupant contact
- (7) Glazing removed prior to accident
- (8) Glazing disintegrated by occupant contact
- (9) Unknown if contacted by occupant

**Note: Sketch intruded areas**

**Note: Sketch intruded areas**

[illegible]

**Document no more than the 15 most severe intrusions**

**OCCUPANT AREA INTRUSION**

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

**LOCATION OF INTRUSION**

Front Seat  
 (11) Left  
 (12) Middle  
 (13) Right

Second Seat  
 (21) Left  
 (22) Middle  
 (23) Right

Third Seat  
 (31) Left  
 (32) Middle  
 (33) Right

Fourth Seat  
 (41) Left  
 (42) Middle  
 (43) Right

(97) Catastrophic  
 (98) Other enclosed area (specify)

(99) Unknown

**INTRUDING COMPONENT***Interior Components*

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Side panel - forward of the A1/A2-pillar
- (11) Door panel (side)
- (12) Side panel - rear of the B-pillar
- (13) Roof (or convertible top)
- (14) Roof side rail
- (15) Windshield
- (16) Windshield header
- (17) Window frame
- (18) Floor pan (includes sill)
- (19) Backlight header
- (20) Front seat back
- (21) Second seat back
- (22) Third seat back
- (23) Fourth seat back
- (24) Fifth seat back
- (25) Seat cushion
- (26) Back door/panel (e.g., tailgate)
- (27) Other interior component (specify): \_\_\_\_\_

*Exterior Components*

- (30) Hood
- (31) Outside surface of this vehicle (specify): \_\_\_\_\_
- (32) Other exterior object in the environment (specify): \_\_\_\_\_
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): \_\_\_\_\_
- (99) Unknown

**MAGNITUDE OF INTRUSION**

- (1)  $\geq 3$  centimeters but  $< 8$  centimeters
- (2)  $\geq 8$  centimeters but  $< 15$  centimeters
- (3)  $\geq 15$  centimeters but  $< 30$  centimeters
- (4)  $\geq 30$  centimeters but  $< 46$  centimeters
- (5)  $\geq 46$  centimeters but  $< 61$  centimeters
- (6)  $\geq 61$  centimeters
- (7) Catastrophic
- (9) Unknown

**DOMINANT CRUSH DIRECTION**

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

## STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
------------------	---	--------------	---	-------------

	—	NO DEFORMATION	=	
--	---	----------------	---	--

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

## STEERING COLUMN

## INSTRUMENT PANEL

87. Steering Column Type 2

- (1) Fixed column  
 (2) Tilt column  
 (3) Telescoping column  
 (4) Tilt and telescoping column  
 (8) Other column type (specify): \_\_\_\_\_

(9) Unknown

88. Tilt Steering Column Adjustment 9

- (0) No tilt steering column  
 (1) Full up  
 (2) Between full up and center  
 (3) Center  
 (4) Between center and full down  
 (5) Full down  
 (9) Unknown

WAS  
MOVED  
PRIOR to  
inspection

89. Telescoping Steering Column Adjustment 0

- (0) No telescoping steering column  
 (1) Full back  
 (2) Between full back and midpoint  
 (3) Midpoint  
 (4) Between midpoint and full forward  
 (5) Full forward  
 (9) Unknown

90. Steering Rim/Spoke Deformation 00

Code actual measured

- deformation to the nearest centimeter  
 (00) No steering rim deformation  
 (01-14) Actual measured value in centimeters  
 (15) 15 centimeters or more  
 (98) Observed deformation cannot be measured  
 (99) Unknown

91. Location of Steering Rim/Spoke Deformation 0 0

(00) No steering rim deformation

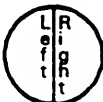
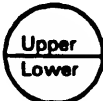
## Quarter Sections

- (01) Section A  
 (02) Section B  
 (03) Section C  
 (04) Section D



## Half Sections

- (05) Upper half of rim/spoke  
 (06) Lower half of rim/spoke  
 (07) Left half of rim/spoke  
 (08) Right half of rim/spoke



- (09) Complete steering wheel collapse  
 (10) Undetermined location  
 (99) Unknown

92. Odometer Reading 006,000

\_\_\_\_\_ kilometers

Code to the nearest 1,000 kilometers

- (000) No odometer  
 (001) Less than 1,500 kilometers  
 (500) 499,500 kilometers or more  
 (999) Unknown

3,702 miles X 1.6093 = 5,958 kilometersSource: Repair Estimate93. Instrument Panel Damage from Occupant Contact? 0

- (0) No  
 (1) Yes  
 (9) Unknown

94. Type of Knee Bolster Covering 2

- (0) No knee bolster  
 (1) Padded  
 (2) Rigid plastic  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

95. Knee Bolsters Deformed from Occupant Contact? L

- (0) No knee bolster  
 (1) No deformation  
 (2) Yes - deformation  
 (9) Unknown

96. Did Glove Compartment Door Open During Collision(s)? 2

- (0) No glove compartment door broken  
 (1) No - door did not open  
 (2) Yes - door opened  
 (9) Unknown

too  
PER body shop  
MAN

97. Adaptive (Assistive) Driving Equipment 0

- (0) No adaptive driving equipment  
 (1) Adaptive driving equipment installed (Check all that apply.)

- [ ] Hand controls for braking/acceleration  
 [ ] Steering control devices (attached to OEM steering wheel)  
 [ ] Steering knob attached to steering wheel  
 [ ] Low effort power steering (unit or device)  
 [ ] Replacement steering wheel (i.e., reduced diameter)  
 [ ] Joy-stick steering controls  
 [ ] Wheelchair tie-downs  
 [ ] Modification to seat belts (specify): \_\_\_\_\_

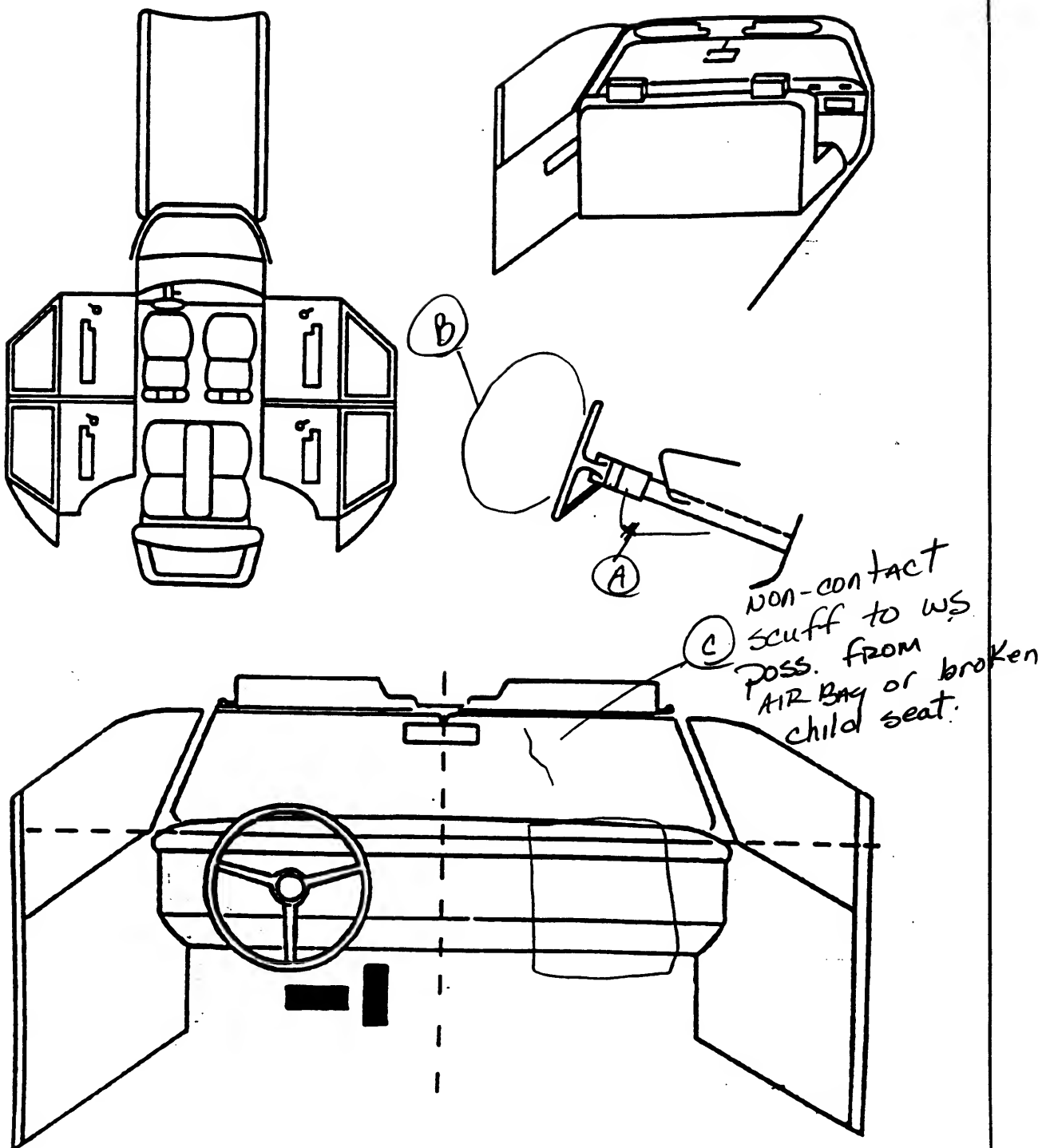
[ ] Additional or relocated switches (specify): \_\_\_\_\_

- [ ] Raised roof  
 [ ] Wall-mounted head rest (used behind wheelchair)  
 [ ] Other adaptive device (specify): \_\_\_\_\_

(9) Unknown

## VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).

Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.

Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	007	1	(R) Knee	scuff	2
B	170	1	FACE	makeup	1
C	001		N/A	scuff to windshield	3
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

## FRONT

- (001) Windshield  
 (002) Mirror  
 (003) Sunvisor  
 (004) Steering wheel rim  
 (005) Steering wheel hub/spoke  
 (006) Steering wheel (combination of codes 004 and 005)  
 (007) Steering column, transmission selector lever, other attachment  
 (008) Cellular telephone or CB radio  
 (009) Add on equipment (e.g., tape deck, air conditioner)  
 (010) Left instrument panel end below  
 (011) Center instrument panel end below  
 (012) Right instrument panel end below  
 (013) Glove compartment door  
 (014) Knee bolster  
 (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)  
 (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)  
 (017) Windshield reinforced by exterior object, (specify):  
 (019) Other front object (specify):

## CODES FOR INTERIOR COMPONENTS

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests  
 (052) Left side hardware or armrest  
 (053) Left A (A1/A2)-pillar  
 (054) Left B-pillar  
 (055) Other left pillar (specify):  
 (056) Left side window glass  
 (057) Left side window frame  
 (058) Left side window sill  
 (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.  
 (060) Other left side object (specify):

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests  
 (102) Right side hardware or armrest  
 (103) Right A (A1/A2)-pillar  
 (104) Right B-pillar  
 (105) Other right pillar (specify):  
 (106) Right side window glass  
 (107) Right side window frame  
 (108) Right side window sill  
 (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.  
 (110) Other right side object (specify):

## INTERIOR

- (151) Seat, back support  
 (152) Belt restraint webbing/buckle  
 (153) Belt restraint B-pillar or door frame attachment point  
 (154) Other restraint system component (specify):  
 (155) Head restraint system  
 (160) Other occupants (specify):  
 (161) Interior loose objects  
 (162) Child safety seat (specify):  
 (163) Other interior object (specify):

## AIR BAG

- (170) Air bag-driver side  
 (175) Air bag compartment cover-driver side  
 (180) Air bag-passenger side  
 (185) Air bag compartment cover-passenger side  
 (190) Other air bag (specify):  
 (195) Other air bag compartment cover (specify):

## ROOF

- (201) Front header  
 (202) Rear header  
 (203) Roof left side rail  
 (204) Roof right side rail  
 (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)  
 (252) Floor or console mounted transmission lever, including console  
 (253) Parking brake handle  
 (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)  
 (302) Backlight storage rack, door, etc.  
 (303) Other rear object (specify):

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration  
 (402) Steering control devices (attached to OEM steering wheel)  
 (403) Steering knob attached to steering wheel  
 (405) Replacement steering wheel (i.e., reduced diameter)  
 (406) Joy stick steering controls  
 (407) Wheelchair tie-downs  
 (408) Modification to seat belts, (specify):  
 (409) Additional or relocated switches, (specify):  
 (410) Raised roof  
 (411) Wall mounted head rest (used behind wheel chair)  
 (412) Other adaptive device (specify):

## CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain  
 (2) Probable  
 (3) Possible  
 (9) Unknown



# MANUAL RESTRAINTS

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form. If a Child safety seat is present, encode the data on the back of this page. If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
F I R S T	Availability	4		4
	Evidence of usage	04		04
	Used in this crash?	04		04
	Proper Use	1		1
	Failure Modes	1		1
	Anchorage Adjustment	3		4
S E C O N D	Availability	4		4
	Evidence of usage	04		04
	Used in this crash?	00		00
	Proper Use	0		0
	Failure Modes	0		0
	Anchorage Adjustment	2		4
O T H E R	Availability	4	3	4
	Evidence of usage	04	00	04
	Used in this crash?	00	00	00
	Proper Use	0	0	0
	Failure Modes	0	0	0
	Anchorage Adjustment	1	0	1

## Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

## Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify): \_\_\_\_\_
- (9) Unknown

## Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): \_\_\_\_\_

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify): \_\_\_\_\_

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat type unknown
- (18) Other belt used with child safety seat (specify): \_\_\_\_\_
- (99) Unknown if belt used

## Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

## Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_
- (8) Other improper use of manual belt system (specify): \_\_\_\_\_
- (9) Unknown

## Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_
- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other manual belt failure (specify): \_\_\_\_\_
- (9) Unknown

## Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

## Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

**AUTOMATIC RESTRAINTS**

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

**AIR BAGS**

		Left Front	Right Front	Other
F I R S T	Availability/Function	/	/	0
	Deployment	/	/	0
	Failure	/	/	0

**Air Bag System Availability/Function**

(0) Not equipped/not available

(1) Air bag

**Non-functional**

(2) Air bag disconnected (specify): \_\_\_\_\_

(3) Air bag not reinstalled

(9) Unknown

**Are There Indications of Air Bag System Failure? (This Occupant Position)**

(0) Not equipped/not available

(1) No

(2) Yes (specify): \_\_\_\_\_

(9) Unknown

**Frontal Air Bag System Deployment (This Occupant Position)**

(0) Not equipped/not available

(1) Deployed during accident (as a result of impact)

(2) Deployed inadvertently just prior to accident

(3) Deployed, accident sequence undetermined

(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)

(5) Unknown if deployed

(7) Nondeployed

(9) Unknown

**Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)**

(0) Not equipped with an "other" air bag

(1) Deployed during accident (as a result of impact)

(2) Deployed inadvertently just prior to accident

(3) Deployed, details unknown

(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)

(5) Unknown if deployed

(7) Nondeployed

(9) Unknown

**AUTOMATIC BELTS**

		Left	Right
F I R S T	Availability/Function		
	Use		
	Type		
	Proper Use		
	Failure Modes		

**Automatic (Passive) Belt System Availability/Function**

(0) Not equipped/not available

(1) 2 point automatic belts

(2) 3 point automatic belts

(3) Automatic belts - type unknown

**Non-functional**

(4) Automatic belts destroyed or rendered inoperative

(9) Unknown

**Automatic (Passive) Belt System Use**

(0) Not equipped/not available/destroyed or rendered inoperative

(1) Automatic belt in use

(2) Automatic belt not in use (manually disconnected, motorized track inoperative)

(3) Automatic belt use unknown

(9) Unknown

**Automatic (Passive) Belt System Type**

(0) Not equipped/not available

(1) Non-motorized system

(2) Motorized system

(9) Unknown

**Proper Use of Automatic (Passive) Belt System**

(0) Not equipped/not available/not used

(1) Automatic belt used properly

(2) Automatic belt used properly with child safety seat

**Automatic Belt Used Improperly**

(3) Automatic shoulder belt worn under arm

(4) Automatic shoulder belt worn behind back

(5) Automatic belt worn around more than one person

(6) Lap portion of automatic belt worn on abdomen

(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of automatic belt system (specify): \_\_\_\_\_

(9) Unknown

**Automatic (Passive) Belt Failure Modes During Accident**

(0) Not equipped/not available/not in use

(1) No automatic belt failure(s)

(2) Torn webbing (stretched webbing not included)

(3) Broken buckle or latchplate

(4) Upper anchorage separated

(5) Other anchorage separated (specify): \_\_\_\_\_

(6) Broken retractor

(7) Combination of above (specify): \_\_\_\_\_

(8) Other automatic belt failure (specify): \_\_\_\_\_

(9) Unknown

# FIRST SEAT FRONTAL AIR BAGS

NOTES: Encode the applicable data for the driver and first seat passenger in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
Type of air bag?	1	1
Flaps open at tear points?	2	2
Flaps damaged?	1	1
Air bag damaged?	01	01
Source of air bag damage	01	01
Air bag tethered?	2	Bottom
Air bag have vent ports?	1	1
Other occupant contact air bag?	1	1
Occupant wearing eyewear?		1

BIAS

## Type of Air Bag

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

## Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## Was There Damage To The Air Bag?

- (00) Not equipped/not available
- (01) Not damaged

### Yes - Air Bag Damage

- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify):
- (95) Damaged, details unknown
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

## Source of Air Bag Damage

- (00) Not equipped/not available
- (01) Not damaged
- (02) Object worn by occupant, (specify):
- (03) Object carried by occupant, (specify):
- (04) Adaptive/assistive controls, (specify):
- (05) Fire in vehicle
- (06) Thermal burns
- (07) Rescue or emergency efforts
- (88) Other damage source (specify):
- (95) Damaged, unknown source
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

## Was The Air Bag Tethered?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps): 2
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## Did The Air Bag Have Vent Ports?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## Was the Air Bag in this Occupant's Position Contacted by Another Occupant?

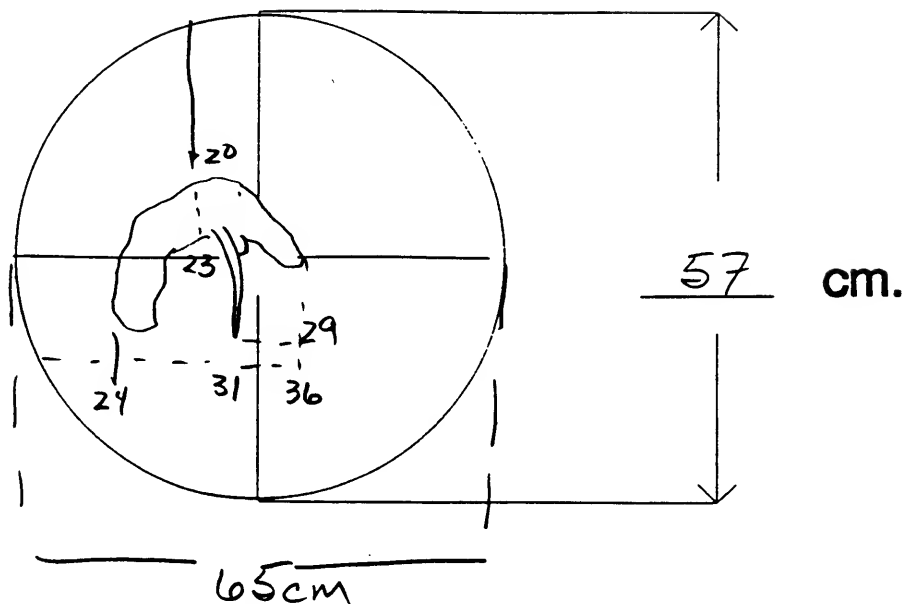
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if other occupant contact to air bag
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## Was This Occupant Wearing Eye-wear?

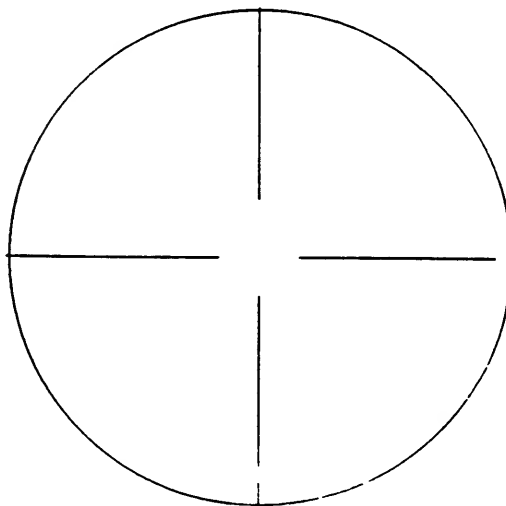
- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## DRIVER AIR BAG DAMAGE AND CONTACT SKETCHES

## 1. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Front)



## 2. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Back)



### DRIVER AIR BAG SKETCHES (Cont'd)

#### 3. DRIVER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

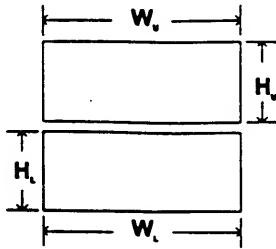
b. Lower Flap

width ( $W_U$ ) 18

width ( $W_L$ ) 18

height ( $H_U$ ) 3

height ( $H_L$ ) 8



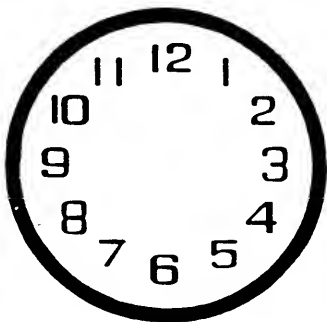
#### 4. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

N/A

#### 5. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

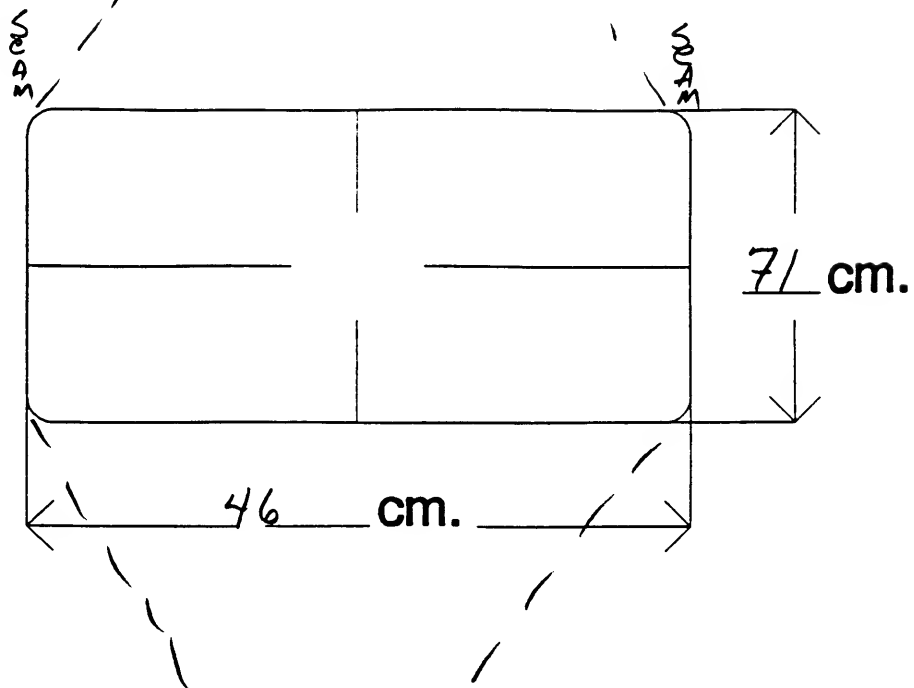
#### 6. SKETCH LOCATION OF CIRCULAR AIR BAG VENT PORTS

N/A

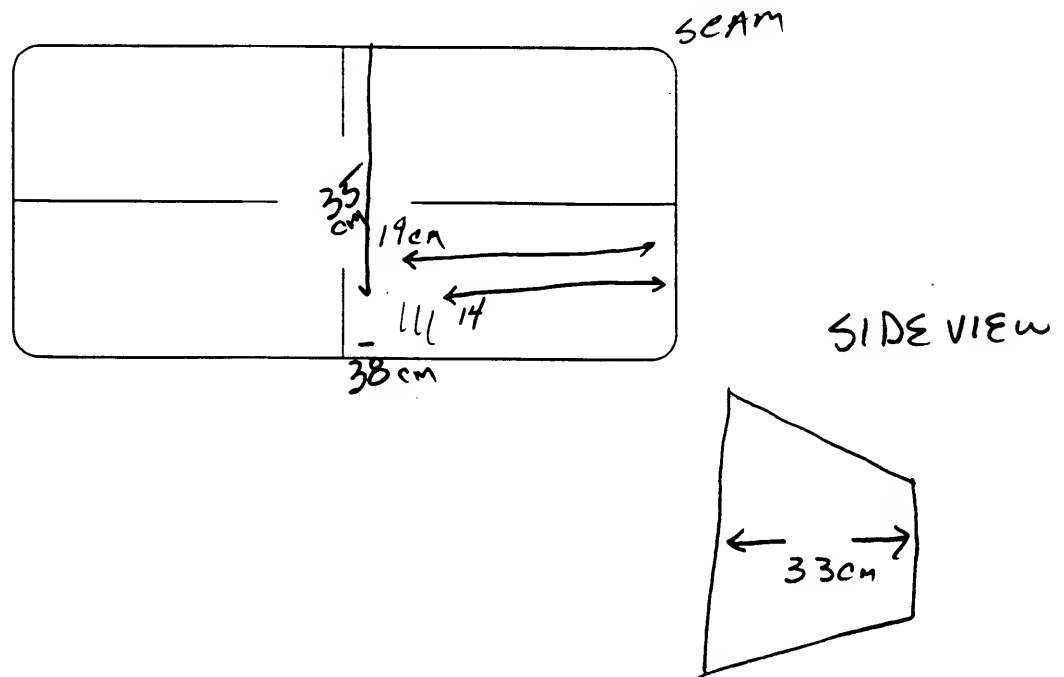


## PASSENGER AIR BAG DAMAGE AND CONTACT SKETCHES

## 1. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Front)



## 2. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Back)



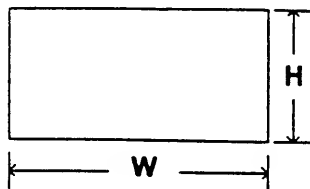
# PASSENGER AIR BAG SKETCHES (Cont'd)

## 3. PASSENGER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

a. Flap

width (W) \_\_\_\_\_

height (H) \_\_\_\_\_



## 4. PASSENGER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

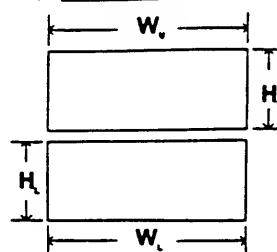
b. Lower Flap

width (W<sub>U</sub>) 19cm

width (W<sub>L</sub>) 19cm

height (H<sub>U</sub>) 6cm

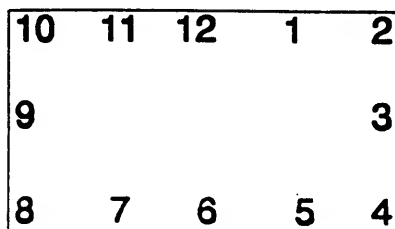
height (H<sub>L</sub>) 6cm



## 5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

## 6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

## 7. SKETCH LOCATION OF RECTANGULAR AIR BAG VENT PORTS



N/A

**"OTHER" AIR BAG DAMAGE AND CONTACT SKETCHES**

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Front)

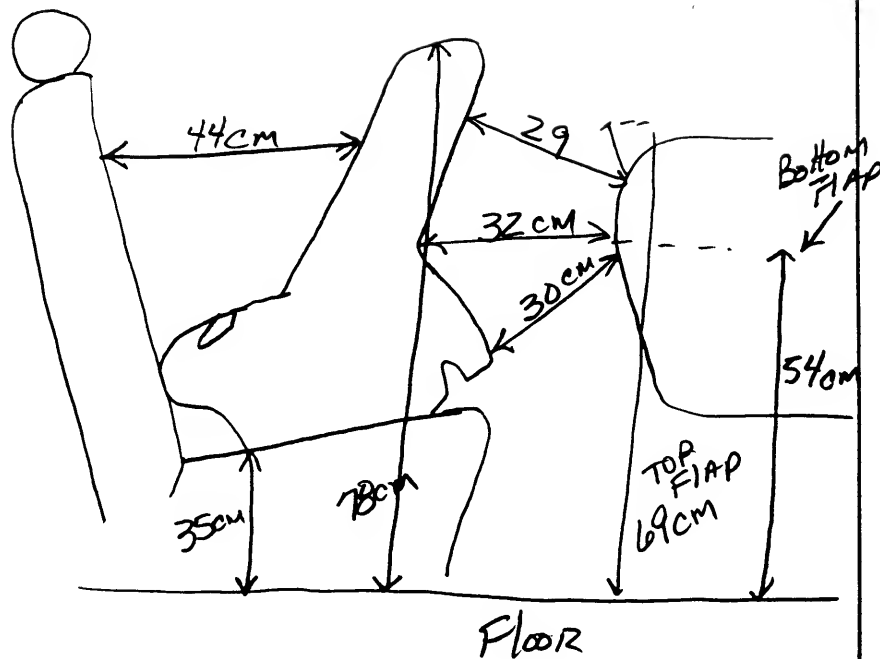
2. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Back)



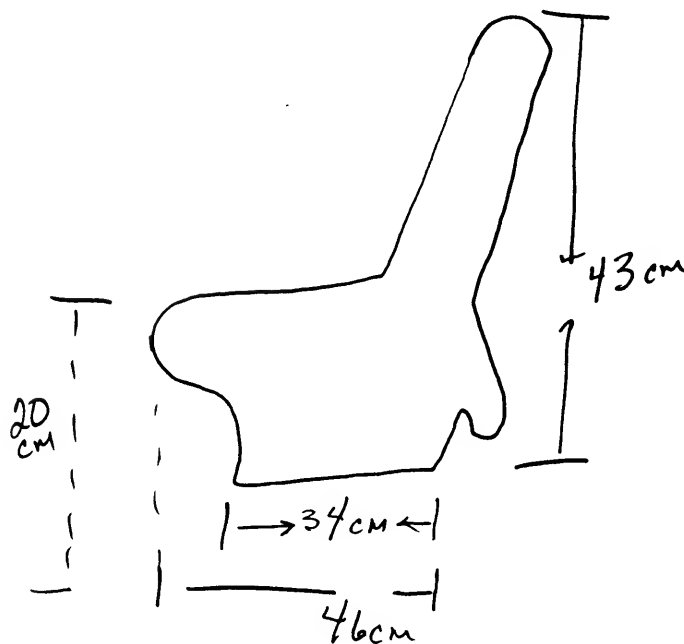
"OTHER" AIR BAG SKETCHES (Cont'd)

3. SKETCH AIR BAG MODULE FLAP AND SIZE OR OPENING FOR AIRBAG

Fisher-Price  
MODEL  
CO [REDACTED]  
Infant car seat



4. SKETCH AIR BAG VENT PORTS



## HEAD RESTRAINTS/SEAT EVALUATION

NOTES: Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	Head Restraint Type/Damage	3	0	3
	Seat Type	02		02
	Seat Performance	1		1
	Seat Orientation	1		1
	Seat Track Position	5		6
	Seat Back Incline Pre/Post Impact	14		14
SECOND	Head Restraint Type/Damage	3	0	3
	Seat Type	05		05
	Seat Performance	0		0
	Seat Orientation	1		1
	Seat Track Position	1		1
	Seat Back Incline Pre/Post Impact	14		14
THIRD	Head Restraint Type/Damage	3	0	3
	Seat Type	05	05	05
	Seat Performance	0	0	0
	Seat Orientation	1	1	1
	Seat Track Position	3	3	3
	Seat Back Incline Pre/Post Impact	14	14	14
OTHER	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
	Seat Track Position			
	Seat Back Incline Pre/Post Impact			

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE  
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

**HEAD RESTRAINTS/SEAT EVALUATION****Head Restraint Type/Damage by Occupant at This Occupant Position**

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other  
Specify: \_\_\_\_\_
- (9) Unknown

**Seat Type (this Occupant Position)**

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

**Seat Performance (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**Seat Orientation (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**Seat Track Adjusted Position Prior To Impact**

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track

**Adjustable Seat Track**

- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

**Seat Back Incline Prior and Post Impact**

- (00) Occupant not seated or no seat
- (01) Not adjustable

**Upright prior to impact**

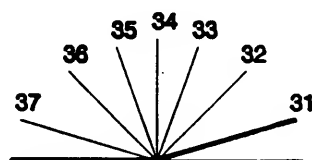
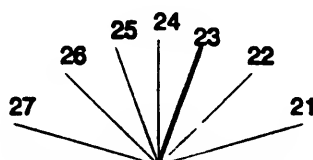
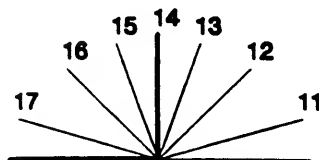
- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

**Slightly reclined prior to impact**

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

**Completely reclined prior to impact**

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position
- (99) Unknown

Coding diagrams for *Seat Back Incline Position Prior and Post Impact*

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE  
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

## CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number	02					
1. Type of Child Safety Seat	1					
2. Child Safety Seat Orientation	01					
3. Child Safety Seat Harness Usage	12					
4. Child Safety Seat Shield Usage	12					
5. Child Safety Seat Tether Usage	03					
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

**1. Type of Child Safety Seat**

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify):  
\_\_\_\_\_
- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

**2. Child Safety Seat Orientation**

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify):  
\_\_\_\_\_
- (09) Unknown orientation
- Designed for Forward Facing for This Age/Weight
- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify):  
\_\_\_\_\_
- (19) Unknown orientation

- Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify):  
\_\_\_\_\_

- (29) Unknown orientation

- (99) Unknown if child safety seat used

**3. Child Safety Seat Harness Usage**

**4. Child Safety Seat Shield Usage**

**5. Child Safety Seat Tether Usage**

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) ~~Harness/shield/tether~~ not used
- (12) ~~Harness/shield/tether~~ used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

**6. Child Safety Seat Make/Model**

(Specify make/model and occupant number)

Fisher - Price

MODEL XXXXXXXXXX

\_\_\_\_\_

\_\_\_\_\_

**EJECTION/ENTRAPMENT DATA**

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

**EJECTION** No ☒ Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

---



---



---



---

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

**Ejection**

- (1) Complete ejection  
(2) Partial ejection  
(3) Ejection, Unknown degree  
(9) Unknown

**Ejection Area**

- (1) Windshield  
(2) Left front  
(3) Right front  
(4) Left rear  
(5) Right rear  
(6) Rear

**(7) Roof**

- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown

**Ejection Medium**

- (1) Door/hatch/tailgate  
(2) Nonfixed roof structure  
(3) Fixed glazing  
(4) Nonfixed glazing (specify):

**(5) Integral structure**

- (8) Other medium (specify):

(9) Unknown

**Medium Status (Immediately Prior to Impact)**

- (1) Open  
(2) Closed  
(3) Integral structure  
(9) Unknown

**ENTRAPMENT** No ☒ Yes ☐

Describe entrapment mechanism:

---



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---

Component(s):

(Note in vehicle interior diagram)

Appendix F:

**NASS CDS VEHICLE FORMS: VEHICLE #2**



## GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number 10

2. Case Number - Stratum 9521

3. Vehicle Number 02

### VEHICLE IDENTIFICATION

4. Vehicle Model Year 89  
Code the last two digits of the model year  
(99) Unknown

5. Vehicle Make (specify): 14  
MERCURY  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown

6. Vehicle Model (specify): 017  
SABLE LS  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown

7. Body Type 04  
Note: Applicable codes may be found on  
the back of this page.

8. Vehicle Identification Number 04  
1MEBM53U0KG  
Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros Unknown—Code all nines

9. Vehicle Special Use (This Trip) 0  
(0) No special use  
(1) Taxi  
(2) Vehicle used as school bus  
(3) Vehicle used as other bus  
(4) Military  
(5) Police  
(6) Ambulance  
(7) Fire truck or car  
(8) Other (specify):  
(9) Unknown

### OFFICIAL RECORDS

10. Police Reported Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

11. Police Reported Travel Speed 999  
Code to the nearest kmph (NOTE: 000 means  
less than 0.5 kmph)  
(160) 159.5 kmph and above  
(999) Unknown

\_\_\_ mph X 1.6093 = \_\_\_ kmph

12. Speed Limit 040  
(000) No statutory limit  
Code posted or statutory speed limit through  
in kmph construction  
(999) Unknown zone

25 mph X 1.6093 = 40 kmph

13. Police Reported Alcohol Presence For Driver 0  
(0) No alcohol present  
(1) Yes alcohol present  
(7) Not reported  
(8) No driver present  
(9) Unknown

14. Alcohol Test Result For Driver 96  
Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown

Source: PAR

15. Police Reported Other Drug Presence For Driver 0  
(0) No other drug(s) present  
(1) Yes other drug(s) present  
(7) Not reported  
(8) No driver present  
(9) Unknown

16. Other Drug Specimen Test Result For Driver 0  
(0) No specimen test given  
(1) Drug(s) not found in specimen  
(2) Drug(s) found in specimen, (specify):  
(3) Specimen test given, results unknown or not  
obtained  
(8) No driver present  
(9) Unknown if specimen test given

17. Driver's Zip Code [REDACTED]  
(00001) Driver not a resident of U.S. or territories  
Code actual 5-digit zip code  
(99998) No driver present  
(99999) Unknown

18. Driver's Race/Ethnic Origin 1  
(1) White (non-Hispanic)  
(2) Black (non-Hispanic)  
(3) White (Hispanic)  
(4) Black (Hispanic)  
(5) American Indian, Eskimo or Aleut  
(6) Asian or Pacific Islander  
(7) Other (specify):  
(8) No driver present  
(9) Unknown

# CODES FOR BODY TYPE

## CDS APPLICABLE VEHICLES

### Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2-door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (07) Hatchback, number of doors unknown
- (08) Other automobile type (specify): \_\_\_\_\_
- (09) Unknown automobile type

### Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
- (11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis
- (13) Three-wheel automobile or automobile derivative

### Utility Vehicles ( $\leq 4,500$ kgs GVWR)

- (14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
- (15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
- (16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
- (19) Utility, unknown body type

### Van Based Light Trucks ( $\leq 4,500$ kgs GVWR)

- (20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
- (21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
- (22) Step van or walk-in van ( $\leq 4,500$  kgs GVWR)
- (23) Van based motorhome ( $\leq 4,500$  kgs GVWR)
- (24) Van based school bus ( $\leq 4,500$  kgs GVWR)
- (25) Van based other bus ( $\leq 4,500$  kgs GVWR)
- (28) Other van type (Hi-Cube Van, Kary) (specify): \_\_\_\_\_
- (29) Unknown van type

### Light Conventional Trucks (Pickup style cab, $\leq 4,500$ kgs GVWR)

- (30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10, T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
- (31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)

- (32) Pickup with slide-in camper
- (33) Convertible pickup
- (39) Unknown pickup style light conventional truck type

### Other Light Trucks ( $\leq 4,500$ kgs GVWR)

- (40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (45) Other light conventional truck type
- (48) Unknown light truck type
- (49) Unknown light vehicle type (automobile, utility, van, or light truck)

## OTHER VEHICLES

### Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify): \_\_\_\_\_
- (59) Unknown bus type

### Medium/Heavy Trucks ( $> 4,500$ kgs GVWR)

- (60) Step van ( $> 4,500$  kgs GVWR)
- (61) Single unit straight truck ( $4,500$  kgs  $<$  GVWR  $\leq 8,850$  kgs)
- (62) Single unit straight truck ( $8,850$  kgs  $<$  GVWR  $\leq 12,000$  kgs)
- (63) Single unit straight truck ( $> 12,000$  kgs GVWR)
- (64) Single unit straight truck, GVWR unknown
- (65) Medium/heavy truck based motorhome
- (67) Truck-tractor with no cargo trailer
- (68) Truck-tractor pulling one trailer
- (69) Truck-tractor pulling two or more trailers
- (70) Truck-tractor (unknown if pulling trailer)
- (78) Unknown medium/heavy truck type
- (79) Unknown truck type (light/medium/heavy)

### Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

- (80) Motorcycle
- (81) Moped (motorized bicycle)
- (82) Three-wheel motorcycle or moped
- (88) Other motored cycle (minibike, motorscooter) (specify): \_\_\_\_\_
- (89) Unknown motored cycle type

### Other Vehicles

- (90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (91) Snowmobile
- (92) Farm equipment other than trucks
- (93) Construction equipment other than trucks
- (97) Other vehicle type
- (99) Unknown body type



**PRECRASH ENVIRONMENTAL DATA****19. Relation To Interchange Or Junction** 2

- (0) Non-interchange area and non-junction
- (1) Interchange area related

*Non-Interchange junctions*

- (2) Intersection related
- (3) Driveway, alley access related
- (4) Other junction (specify) \_\_\_\_\_

- (5) Unknown type of junction

- (9) Unknown

**20. Trafficway Flow** 0

- (0) Not physically divided (two way traffic)
- (1) Divided trafficway-median strip without positive barrier
- (2) Divided trafficway-median strip with positive barrier
- (3) One way traffic
- (9) Unknown

**21. Number Of Travel Lanes** 2

- (1) One
- (2) Two
- (3) Three
- (4) Four
- (5) Five
- (6) Six
- (7) Seven or more
- (9) Unknown

**22. Roadway Alignment** 1

- (1) Straight *In segment just prior to crash*
- (2) Curve right
- (3) Curve left
- (9) Unknown

**23. Roadway Profile** 1

- (1) Level
- (2) Uphill grade (> 2%)
- (3) Hill crest
- (4) Downhill grade (> 2%)
- (5) Sag
- (9) Unknown

**24. Roadway Surface Type** 2

- (1) Concrete
- (2) Bituminous (asphalt)
- (3) Brick or block
- (4) Slag, gravel, or stone
- (5) Dirt
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**25. Roadway Surface Condition** 2

- (1) Dry
- (2) Wet
- (3) Snow or slush
- (4) Ice
- (5) Sand, dirt, or oil
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**26. Light Conditions** 1

- (1) Daylight
- (2) Dark
- (3) Dark, but lighted
- (4) Dawn
- (5) Dusk
- (9) Unknown

**27. Atmospheric Conditions** 1

- (0) No adverse atmospheric-related driving conditions
- (1) Rain
- (2) Sleet/hail
- (3) Snow
- (4) Fog
- (5) Rain and fog
- (6) Sleet and fog
- (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): \_\_\_\_\_
- (9) Unknown

**28. Traffic Control Device** 2

- (0) No traffic control(s)
- (1) Traffic control signal (not RR crossing)

*Regulatory*

- (2) Stop sign
- (3) Yield sign
- (4) School zone sign
- (5) Other regulatory sign (specify): \_\_\_\_\_

- (6) Warning sign (not RR crossing)

- (7) Unknown sign

- (8) Miscellaneous/other controls including RR controls (specify): \_\_\_\_\_

- (9) Unknown

**29. Traffic Control Device Functioning** 2

- (0) No traffic control device
- (1) Traffic control device not functioning (specify): \_\_\_\_\_
- (2) Traffic control device functioning properly
- (9) Unknown

**PRECRASH DRIVER RELATED DATA****30. Driver's Distraction/Inattention To Driving** 02  
(Prior To Recognition Of Critical Event)

- (00) No driver present  
 (01) Attentive or not distracted  
 (02) Looked but did not see

*Distractions*

- (03) By other occupant(s), (specify): \_\_\_\_\_  
 (04) By moving object in vehicle (specify): \_\_\_\_\_  
 (05) While talking or listening to cellular phone  
 (specify location and type of phone): \_\_\_\_\_  
 (06) While dialing cellular phone (specify location  
 and type of phone): \_\_\_\_\_  
 (07) While adjusting climate controls  
 (08) While adjusting radio, cassette, CD (specify): \_\_\_\_\_  
 (09) While using other device/object in vehicle  
 (specify): \_\_\_\_\_  
 (10) Sleepy or fell asleep  
 (11) Distracted by outside person, object, or event  
 (specify): \_\_\_\_\_  
 (12) Eating or drinking  
 (13) Smoking related  
 (97) Distracted/inattentive, details unknown  
 (98) Other, distraction (specify): \_\_\_\_\_  
 (99) Unknown

**31. Pre-Event Movement** (Prior to  
Recognition Of Critical Event) 04

- (00) No driver present  
 (01) Going straight  
 (02) Decelerating in traffic lane  
 (03) Accelerating in traffic lane  
 (04) Starting in traffic lane  
 (05) Stopped in traffic lane  
 (06) Passing or overtaking another vehicle  
 (07) Disabled or parked in travel lane  
 (08) Leaving a parking position  
 (09) Entering a parking position  
 (10) Turning right  
 (11) Turning left  
 (12) Making a U-turn  
 (13) Backing up (other than for parking position)  
 (14) Negotiating a curve  
 (15) Changing lanes  
 (16) Merging  
 (17) Successful avoidance maneuver to a previous  
 critical event  
 (97) Other (specify): \_\_\_\_\_  
 (99) Unknown

**32. Critical Precrash Event** 17*This Vehicle Loss of Control Due To:*

- (01) Blow out or flat tire  
 (02) Stalled engine  
 (03) Disabling vehicle failure (e.g., wheel fell off)  
 (specify): \_\_\_\_\_  
 (04) Non-disabling vehicle problem (e.g., hood flew  
 up) (specify): \_\_\_\_\_  
 (05) Poor road conditions (puddle, pot hole, ice, etc.)  
 (specify): \_\_\_\_\_  
 (06) Traveling too fast for conditions  
 (08) Other cause of control loss (specify): \_\_\_\_\_  
 (09) Unknown cause of control loss

*This Vehicle Traveling*

- (10) Over the lane line on left side of travel lane  
 (11) Over the lane line on right side of travel lane  
 (12) Off the edge of the road on the left side  
 (13) Off the edge of the road on the right side  
 (14) End departure  
 (15) Turning left at intersection  
 (16) Turning right at intersection  
 (17) Crossing over (passing through) intersection  
 (18) This vehicle decelerating  
 (19) Unknown travel direction

*Other Motor Vehicle In Lane*

- (50) Other vehicle stopped  
 (51) Traveling in same direction with lower steady  
 speed  
 (52) Traveling in same direction while decelerating  
 (53) Traveling in same direction with higher speed  
 (54) Traveling in opposite direction  
 (55) In crossover  
 (56) Backing  
 (59) Unknown travel direction of other motor  
 vehicle in lane

*Other Motor Vehicle Encroaching Into Lane*

- (60) From adjacent lane (same direction)—over left  
 lane line  
 (61) From adjacent lane (same direction)—over right  
 lane line  
 (62) From opposite direction—over left lane line  
 (63) From opposite direction—over right lane line  
 (64) From parking lane  
 (65) From crossing street, turning into same  
 direction  
 (66) From crossing street, across path  
 (67) From crossing street, turning into opposite  
 direction  
 (68) From crossing street, intended path not known  
 (70) From driveway, turning into same direction  
 (71) From driveway, across path  
 (72) From driveway, turning into opposite direction  
 (73) From driveway, intended path not known  
 (74) From entrance to limited access highway  
 (78) Encroachment by other vehicle—details  
 unknown

*Pedestrian, Pedalcyclist, or Other Nonmotorist*

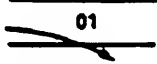

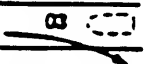


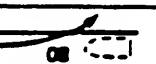
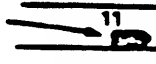


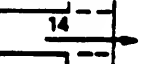
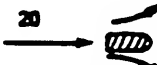
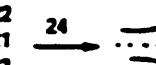
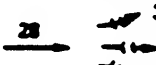


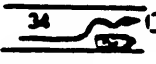
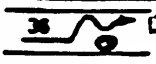

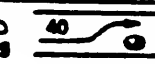

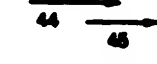



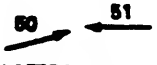







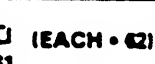



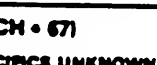

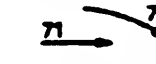
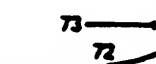

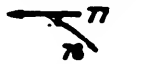
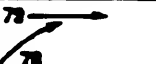


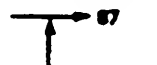


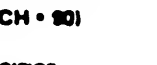
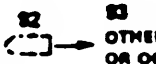


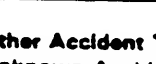

- (80) Pedestrian in roadway  
 (81) Pedestrian approaching roadway  
 (82) Pedestrian—unknown location  
 (83) Pedalcyclist or other nonmotorist in roadway  
 (specify): \_\_\_\_\_  
 (84) Pedalcyclist or other nonmotorist approaching  
 roadway, (specify): \_\_\_\_\_  
 (85) Pedalcyclist or other nonmotorist—unknown  
 location (specify): \_\_\_\_\_

*Object or Animal*

- (87) Animal in roadway  
 (88) Animal approaching roadway  
 (89) Animal—unknown location  
 (90) Object in roadway  
 (91) Object approaching roadway  
 (92) Object—unknown location  
 (98) Other critical precrash event (specify): \_\_\_\_\_  
 (99) Unknown

<p>33. Attempted Avoidance Maneuver <u>01</u></p> <p>(00) No driver present (01) No avoidance maneuver (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (98) Other action (specify): _____ (99) Unknown</p> <p>34. Pre-Impact Stability <u>1</u></p> <p>(0) No driver present (1) Tracking (2) Skidding longitudinally—rotation less than 30 degrees (3) Skidding laterally—clockwise rotation (4) Skidding laterally—counterclockwise rotation (7) Other vehicle loss-of-control (specify): _____ (9) Precrash stability unknown</p>	<p>35. Pre-Impact Location <u>1</u></p> <p>(0) No driver present (1) Stayed in original travel lane (2) Stayed on roadway but left original travel lane (3) Stayed on roadway, not known if left original travel lane (4) Departed roadway (5) Remained off roadway (6) Returned to roadway (7) Entered roadway (9) Unknown</p> <p>36. Accident Type <u>89</u></p> <p>(Note: Applicable codes on back of this page) (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify): _____ (99) Unknown</p>
--	--

**STOP HERE IF GV07 DOES NOT EQUAL 01 - 49**

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER 16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 STOPPED 21, 22, 23	 22 SLOWER 24, 25, 27	 26 DECEL. 28, 29, 31	 30 SPECIFICS OTHER	 31 SPECIFICS UNKNOWN
	E Forward Impact	 34 CONTROL/ TRACTION LOSS	 36 CONTROL/ TRACTION LOSS	 38 AVOID COLLISION WITH VEH.	 40 AVOID COLLISION WITH OBJECT	 41 SPECIFICS OTHER
	F Sideswipe Angle	 44 SPECIFICS OTHER	 45 SPECIFICS OTHER	 46 SPECIFICS OTHER	 47 SPECIFICS OTHER	(EACH - 48) SPECIFICS OTHER (EACH - 49) SPECIFICS UNKNOWN
III Same Trafficway Opposite Direction	G Head-On	 50 LATERAL MOVE	 51 SPECIFICS OTHER	 52 SPECIFICS OTHER	 53 SPECIFICS OTHER	(EACH - 52) SPECIFICS OTHER (EACH - 53) SPECIFICS UNKNOWN
	H Forward Impact	 54 CONTROL/ TRACTION LOSS	 56 CONTROL/ TRACTION LOSS	 58 AVOID COLLISION WITH VEH.	 60 AVOID COLLISION WITH OBJECT	 61 SPECIFICS OTHER
	I Sideswipe Angle	 64 LATERAL MOVE	 65 SPECIFICS OTHER	 66 SPECIFICS OTHER	 67 SPECIFICS OTHER	(EACH - 62)(EACH - 63) SPECIFICS OTHER (EACH - 64) SPECIFICS UNKNOWN
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 INITIAL OPPOSITE DIRECTIONS	 70 INITIAL SAME DIRECTIONS	 72 SPECIFICS OTHER	 73 SPECIFICS OTHER	(EACH - 74)(EACH - 75) SPECIFICS OTHER SPECIFICS UNKNOWN
	K Turn Into Path	 77 TURN INTO SAME DIRECTION	 78 TURN INTO OPPOSITE DIRECTIONS	 80 SPECIFICS OTHER	 81 SPECIFICS OTHER	(EACH - 84)(EACH - 85) SPECIFICS OTHER SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 86 SPECIFICS OTHER	 87 SPECIFICS OTHER	 88 SPECIFICS OTHER	 89 SPECIFICS OTHER	(EACH - 90) SPECIFICS OTHER (EACH - 91) SPECIFICS UNKNOWN
VI Miscellaneous	M Backing Etc	 92 BACKING VEH.	 93 OTHER VEH. OR OBJECT	 94 OTHER ACCIDENT TYPE	 95 UNKNOWN ACCIDENT TYPE	 96 NO IMPACT

**OCCUPANT RELATED**

37. Driver Presence in Vehicle 1  
 (0) Driver not present  
 (1) Driver present  
 (9) Unknown
38. Number of Occupants This Vehicle 02  
 (00-96) Code actual number of occupants for this vehicle  
 (97) 97 or more  
 (99) Unknown
39. Number of Occupant Forms Submitted 02

**AIR BAG RELATED**

40. Is this an AOPS Vehicle? 0  
 (0) No (includes unknown)  
 (1) Yes - researcher determined  
 (2) VIN determined air bag system  
 (3) VIN determined automatic (passive) belts  
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 0  
 (0) Not equipped or not available  
 (1) No air bags deployed  
*Single Air Bag Vehicle*  
 (2) Driver air bag deployed  
 (3) Driver air bag, unknown if deployed  
*Multiple Air Bag Vehicle*  
 (4) Driver side only deployed  
 (5) Passenger side only deployed  
 (6) Driver and passenger side deployed  
 (7) Driver and passenger side unknown if deployed  
 (8) Air bag(s) deployed, details unknown  
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 0  
 (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

Specify type of "other" air bag present: \_\_\_\_\_

**VEHICLE WEIGHT ITEMS**

43. Vehicle Curb Weight 1400  
 \_\_\_\_\_ Code weight to nearest 10 kilograms.  
 (045) Less than 450 kilograms  
 (610) 6,100 kilograms or more  
 (999) Unknown  
 \_\_\_\_\_ lbs X .4536 = 1411 kgs  
 Source: \_\_\_\_\_

44. Vehicle Cargo Weight 000  
 \_\_\_\_\_ Code weight to nearest 10 kilograms.  
 (000) Less than 5 kilograms  
 (450) 4,500 kilograms or more  
 (999) Unknown  
 \_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs

Source: \_\_\_\_\_

**ROLLOVER DATA**

45. Rollover 00  
 (00) No rollover (no overturning)  
*Rollover (primarily about the longitudinal axis)*  
 (01-16) Code the number of quarter turns  
 (17) Rollover, 17 or more quarter turns (specify): \_\_\_\_\_  
 (98) Rollover--end-over-end (i.e., primarily about the lateral axis)  
 (99) Rollover (overturn), details unknown
46. Rollover Initiation Type 00  
 (00) No rollover  
 (01) Trip-over  
 (02) Flip-over  
 (03) Turn-over  
 (04) Climb-over  
 (05) Fall-over  
 (06) Bounce-over  
 (07) Collision with another vehicle  
 (08) Other rollover initiation type specify: \_\_\_\_\_  
 (98) Rollover--end-over-end  
 (99) Unknown rollover initiation type
47. Location of Rollover Initiation 0  
 (0) No rollover  
 (1) On roadway  
 (2) On shoulder--paved  
 (3) On shoulder--unpaved  
 (4) On roadside or divided trafficway median  
 (8) Rollover--end-over-end  
 (9) Unknown
48. Rollover Initiation Object Contacted 00  
 (Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0  
 (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify): \_\_\_\_\_  
 (6) Non-contact rollover forces (specify): \_\_\_\_\_  
 (8) Rollover--end-over-end  
 (9) Unknown
50. Direction of Initial Roll 0  
 (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (8) Rollover--end-over-end  
 (9) Unknown roll direction

**OVERRIDE/UNDERRIDE (THIS VEHICLE)**

51. Front Override/Underride (this Vehicle) 0
52. Rear Override/Underride (this Vehicle) 0
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride
- Override (see specific CDC)*  
*[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*  
 (1) 1st CDC  
 (2) 2nd CDC  
 (3) Other not automated CDC (specify): \_\_\_\_\_
- Underride (see specific CDC)*  
*[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*  
 (4) 1st CDC  
 (5) 2nd CDC  
 (6) Other not automated CDC (specify): \_\_\_\_\_
- (7) Medium/heavy truck or bus override (of any configuration)  
 (9) Unknown

**HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V**

Values: (000)-(359) Code actual value  
 (997) Noncollision  
 (998) Impact with object  
 (999) Unknown

53. Heading Angle For This Vehicle 275
54. Heading Angle For Other Vehicle 035

**RECONSTRUCTION DATA**

55. Towed Trailing Unit 0
- (0) No towed unit  
 (1) Yes—towed trailing unit  
 (9) Unknown
56. Documentation of Trajectory Data for This Vehicle 0
- (0) No  
 (1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0
- (0) Not collision (for highest delta V) with tree or pole  
 (1) Not damaged  
 (2) Cracked/sheared  
 (3) Tilted < 45 degrees  
 (4) Tilted ≥ 45 degrees  
 (5) Uprooted tree  
 (6) Separated pole from base  
 (7) Pole replaced  
 (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V**

58. Basis for Total (Resultant) Delta V (highest) 11

(00) No vehicle inspection

*Delta V Calculated*

- (01) Reconstruction program  
 -damage only routine  
 (02) Reconstruction program  
 -damage and trajectory routine  
 (03) Missing vehicle algorithm

*Delta V Not Calculated*

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

*All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.*

- (05) Rollover  
 (06) Other non-horizontal forces  
 (07) Sideswipe type damage  
 (08) Severe override  
 (09) Yielding object  
 (10) Overlapping damage  
 (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify):  
Case Vehicle was being repaired  
Vehicle #2's impact was to side
- (98) Other, (specify): \_\_\_\_\_

## COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V

999

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (999) Unknown

60. Longitudinal Component of Delta V

Highest

+ 999  
- 999

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: \_\_000 means greater than  
 -0.5 kmph and less than +0.5 kmph)  
 (±160) ±159.5 kmph and above  
 (\_999) Unknown

61. Lateral Component of Delta V

Highest

+ 999  
- 999

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: \_\_000 means greater than -0.5 kmph  
 and less than +0.5 kmph)  
 (±160) ±159.5 kmph and above  
 (\_999) Unknown

62. Energy Absorption

9999 00

\_\_\_\_ Nearest 100 joules (highest)

\_\_\_\_ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)  
 (9997) 999,650 joules or more  
 (9999) Unknown

63. Impact Speed

Highest

998

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (998) Trajectory algorithm not run  
 (999) Unknown

## DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

- 0
- (0) No reconstruction  
 (1) Collision fits model — results appear reasonable  
 (2) Collision fits model — results appear high  
 (3) Collision fits model — results appear low  
 (4) Borderline reconstruction — results appear reasonable

## OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed

Highest

01212 Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)  
 (160) 159.5 kmph and above  
 (999) Unknown

IS MISSING VEHICLE ALGORITHM APPLICABLE FOR THIS VEHICLE? [ ] YES ☒ NO

IF YES: IS A COMPLETED PROGRAM SUMMARY INCLUDED? [ ] YES [ ] NO

## ESTIMATED DELTA V

## VEHICLE INSPECTION

66. Estimated Highest Delta V (Researcher Determined)

3

(0) Reconstruction Delta V coded

*Estimated Delta V*

- (1) Less than 10 kmph
- (2)  $\geq 10$  kmph but  $< 25$  kmph
- (3)  $\geq 25$  kmph but  $< 40$  kmph
- (4)  $\geq 40$  kmph but  $< 55$  kmph
- (5)  $\geq 55$  kmph

*Other estimates of damage severity*

- (6) Minor
- (7) Moderate
- (8) Severe

(9) Unknown

67. Type of Vehicle Inspection

3

- (0) No inspection
- (1) Vehicle fully repaired-no damage evident
- (2) Partial inspection (specify):  
\_\_\_\_\_
- (3) Complete inspection

**\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67=0), \*\*\*****DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS****\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*****THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.**



## EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM**

CRASHWORTHINESS DATA SYSTEM	
1. Primary Sampling Unit Number	<u>1</u> <u>0</u>
2. Case Number - Stratum	<u>9</u> <u>5</u> <u>2</u> <u>1</u>
3. Vehicle Number	<u>0</u> <u>1</u>

## VEHICLE IDENTIFICATION

VIN 1MEBM5340KG \_\_\_\_\_ Model Year 89  
Vehicle Make (specify): MERCURY Vehicle Model (specify): Sable LS

## LOCATOR

**Locate the end of the damage with respect to the vehicle longitudinal center line or bumper corner for end impacts or an undamaged axle for side impacts.**

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
01	starts 98cm forward L R axle	L B-Pillar REARWARD	100cm forward L R axle
02	BC OVER 10cm		

### CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

**Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.**

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

[illegible]

# ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase 106.0 inches x 2.54 = 269 cm  
 Overall Length 192.2 inches x 2.54 = 488 cm  
 Maximum Width 70.8 inches x 2.54 = 180 cm  
 Curb Weight 3,112 pounds x 0.4536 = 1,412 kg  
 Average Track <sup>61.6</sup><sub>60.5</sub> } 61.1 inches x 2.54 = 155 cm  
 Front Overhang 41.3 inches x 2.54 = 105 cm  
 Rear Overhang 46.5 inches x 2.54 = 118 cm  
 Undeformed End Width        inches x 2.54 =        cm  
 Engine Size: cyl/dspl.        cc x 0.001 =        L  
 V6 182 CID x 0.0164 = 3.0 L

## SPECIAL CRASH INVESTIGATION ADDENDUM

Submodel Designation: (specify) LS Color: (specify) Brown Repair Cost: \$ Total

Transmission: (circle) Automatic | Manual Speed: 3-speed | 4-speed | 5-speed | Other: w/OD

Steering: (circle) Power-assisted | Manual Type: rack-and-pinion | worm-and-gear | Other  
(please describe):

Brakes: (circle) Power-assisted | Manual Type: 4-wheel disc | 4-wheel drum | 4-wheel hydraulic  
front disc, rear drum | Other:

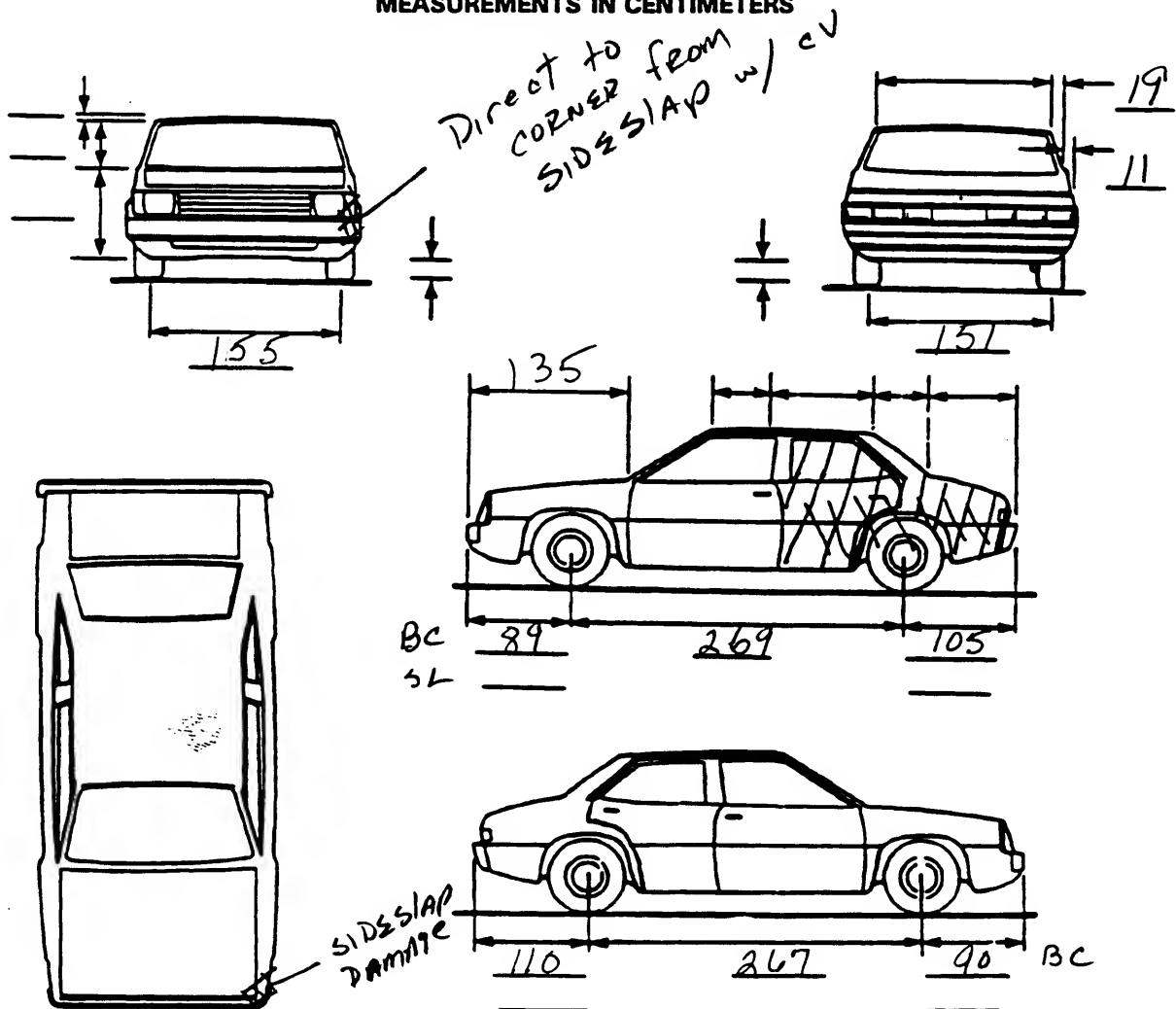
Observed Defects: (specify)

Fleet Type: (circle) Private vehicle | Rental vehicle | Leased vehicle | Commercial vehicle | Other  
(please describe):

## VEHICLE DAMAGE SKETCH

<b>TIRE—WHEEL DAMAGE</b> a. Rotation physically restricted RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>1</u> (1) Yes (2) No (8) NA (9) Unk.		<b>ORIGINAL SPECIFICATIONS</b> Wheelbase <u>269</u> cm Overall Length <u>488</u> cm Maximum Width <u>180</u> cm Curb Weight <u>1412</u> kg Average Track <u>155</u> cm Front Overhang <u>105</u> cm Rear Overhang <u>118</u> cm Undeformed End Width <u>N/A</u> cm Engine Size: cyl./displ. <u>V6 3.0</u> L		<b>WHEEL STEER ANGLES</b> (For locked front wheels or displaced rear axles only) RF ± _____ ° LF ± _____ ° RR ± _____ ° LR ± _____ ° Within ± 5 degrees
<b>TYPE OF TRANSMISSION</b> <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic		<b>DRIVE WHEELS</b> <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD Approximate Cargo Weight _____ kg		

## MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

## BRANHAM AUTOMOBILE REFERENCE BOOK

FORD Motor Co., The American Road, Dearborn, Michigan 48116

Type of Body Pass. Cap.	Model	O'r-all Length	Ship. WT.	Cu. Ft. Vol.	Factory List Pr.	Factory Del'd Pr.
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## 1989

TOPAZ LTS (FWD)—99.9" w.b., (HSO)

5-Ps. 4-dr. Sedan 54D/HVE 177.0" 2,588 370.0 \$11,980.00 \$12,405.00

TOPAZ Options: Engine, 2.3 L. (HSO) 4-Cyl. (141) EFI Gas, 161 lbs.; Transaxle, 3-Spd. Auto. (FLC), 48 lbs.; \$515; Air Conditioning, 48 lbs.; \$788; Radio: Delete, -12 lbs.; GS - \$245; LS - \$382; Power Lock Group, 8 lbs.; Power Side Windows, 15 lbs.; \$296; Power Seat, 12 lbs.; \$251; Speed Control, 5 lbs.; \$182; Tilt Wheel, 2 lbs.; \$124; Air Bag, -16 lbs.; Less \$815—GS; \$822—LS & LT; Power Lock Group, 8 lbs.; GS—2-dr., \$237; 4-dr., \$288; XRS—2-dr., \$156.

MUSTANG (RWD) LX Models, 2.3 L., 4-Cyl. (140) EFI Gas (USA/Ford) (Aug. 1, 1988)  
Bore & Stroke 3.78" x 3.12"; Tax. H.P. 22.86; P.D. 140 cu. in., 2.3 Liters

MUSTANG LX (RWD) 100.5" w.b., 5-Spd. Manual O.D. Trans.

4-Ps. 2-dr. Sedan (RWD)	66B/HVS	179.6"	2,637	374.0	\$9,050.00	\$9,450.00
4-Ps. 2-dr. Convertible	66B/HVS (B2L)	179.6"	2,849	374.0	14,140.00	14,540.00
4-Ps. 2-dr. Hatchback	61B/HVS	179.6"	2,702	374.0	9,556.00	9,956.00

MUSTANG LX (RWD) 5.0 L. LX Models, 8-Cyl. (302) EFI Gas Eng. (Ford) (Aug. 1, 1988)

MUSTANG (RWD) 100.5" w.b., 5-Spd. Manual O.D. Trans.

4-Ps. 2-dr. Sedan (Sport)	66B/HVS	179.6"	2,917	374.0	\$11,410.00	\$11,810.00
4-Ps. 2-dr. Conv. (Sport)	66B/HVS/B2L	179.6"	3,129	374.0	17,001.00	17,401.00
4-Ps. 2-dr. Hatchback (Sport)	61B/HVS	179.6"	2,982	374.0	12,265.00	12,665.00

MUSTANG GT (RWD), 5.0 L., HO, 8-Cyl. (302) EFI Gas Eng. (Ford) (Aug. 1, 1988)  
Bore & Stroke 4.00" x 3.00"; Tax. H.P. 51.2; P.D. 302 cu. in., 5.0 Liters

MUSTANG GT (RWD) 100.5" w.b., 4-Spd. Auto. O.D. Trans.

4-Ps. 2-dr. Convertible	66B/HVB/B2L	179.6"	3,205	374.0	\$17,512.00	\$17,912.00
4-Ps. 2-dr. Hatchback	61B/HVB	179.6"	3,076	374.0	13,272.00	13,672.00

MUSTANG Options: Air Conditioning, Manual, 39 lbs.; \$788; 4-Spd. Auto., 36 lbs.; \$515; Defroster, 1 lb.; \$145; Radio: AM/FM Stereo/Cassette/Clock, 2 lbs.; \$137; Delete Radio, -9 lbs.; Less \$109; Power Lock Group, 9 lbs.; \$237; Power Windows, 6 lbs.; \$222; Sport Seats, 19 lbs.; \$780; Tilt Wheel, 2 lbs.; \$124; Speed Control, 7 lbs.; \$182.

TAURUS, 2.5 L., 4-Cyl. (153) EFI Gas Eng. (Ford) (Aug. 1, 1988)  
Bore & Stroke 3.7" x 3.6"; Tax. H.P. 21.9; P.D. 153 cu. in., 2.5 Liter

TAURUS L—100.6" w.b., 3-Spd. Auto. Trans.

6-Ps. 4-dr. Sedan 54/HVS 188.4" 2,781 419.2 \$11,778.00 \$12,228.00

TAURUS GL—100.6" w.b., 3-Spd. Auto. Trans.

6-Ps. 4-dr. Sedan 54/HVD 188.4" 2,949 419.2 \$12,202.00 \$12,652.00

TAURUS 3.0 L., 6-Cyl. (182) EFI Gas Eng. (Ford) (Oct. 6, 1988)  
Bore & Stroke 3.5" x 3.1"; Tax. H.P. 26.04; P.D. 182 cu. in., 3.0 Liter

TAURUS L/GL/LX, 100.6" w.b.

6-Ps. 4-dr. L Wagon, 3-Spd. Aut.	74/HVS	191.9"	3,652	433.2	\$13,143.00	\$13,593.00
6-Ps. 4-dr. GL Wag., 3-Spd. Aut.	74/HVD	191.9"	3,069	433.2	13,544.00	13,994.00
6-Ps. 4-dr. LX Sdn., 4-Spd. Aut.	54/HVB	188.4"	2,956	419.2	15,282.00	15,732.00
6-Ps. 4-dr. LX Wag., 4-Spd. Aut.	74/HVB	191.9"	3,100	433.2	16,524.00	16,974.00
5-Ps. 4-dr. SHO Sedan	54/HVE	188.4"	2,958	419.2	19,739.00	20,189.00

TAURUS L, GL, LX, 3.0 L., 6-Cyl. (232) SEFI Gas Eng. (Ford) (Aug. 1, 1988)  
Bore & Stroke 3.8" x 3.4"; Tax. H.P. 34.66; P.D. 232 cu. in., 3.8 Liter

TAURUS L, GL, LX—100.6" w.b., 4-Spd. Auto. Trans. O.D. (Dec. 26, 1988)

6-Ps. 4-dr. LX Wagon 74/HVB 188.4" 3,159 433.2 \$16,524.00 \$16,974.00

TAURUS Options: Radio, AM/FM/MPI/Cassette, 6 lbs.; \$137; Air Conditioning, 48 lbs.; \$788; Temp. Control, 53 lbs.; SNA; Tilt Wheel, 1 lb.; \$124; Power Equip. Group, 8 lbs.; SNA; Power Windows, 10 lbs.; \$296; Power Seat, 10 lbs.; \$251; 3rd Seat, Wagon, 20 lbs.; \$155; Moonroof, 42 lbs.; \$741; Speed Control, 4 lbs.; \$182; Keyless Entry System, 13 lbs.; \$202.

MERCURY SABLE—FWD, 3.0 L., 6-Cyl. (182) EFI Gas Eng. (Ford) (Aug. 1, 1988)  
Bore & Stroke 3.5" x 3.1"; Tax. H.P. 25.04; P.D. 182 cu. in., 3.0 Liter

SABLE GS—FWD, 106.0" w.b., 4-Spd. Auto. Trans.

6-Ps. 4-dr. GS Sedan	54/HVS	192.2"	2,992	429.6	\$14,101.00	\$14,551.00
6-Ps. 4-dr. GS Wagon	74/HVS	193.2"	3,084	436.2	14,804.00	15,254.00

SABLE LS—FWD, 106.0" w.b., 4-Spd. Auto. Trans. O.D.

6-Ps. 4-dr. LS Sedan	54/HVB	192.2"	3,048	429.6	\$15,094.00	\$15,544.00
6-Ps. 4-dr. LS Wagon	74/HVB	193.2"	3,132	436.2	15,872.00	16,322.00

MERCURY SABLE—FWD, 3.8 L., 6-Cyl. (232) SEFI Gas Eng. (Ford) (Aug. 31, 1988)  
Bore & Stroke 3.8" x 3.4"; Tax. H.P. 34.66; P.D. 232 cu. in., 3.8 Liter

SABLE GS—FWD, 106.0" w.b., 4-Spd. Auto. Trans. O.D.

6-Ps. 4-dr. GS Sedan	54/HVS	192.2"	3,015	429.6	\$14,501.00	\$14,951.00
6-Ps. 4-dr. GS Wagon	74/HVS	193.2"	3,109	439.2	15,204.00	15,654.00

SABLE LS—FWD, 106.0" w.b., 4-Spd. Auto. Trans. O.D.

6-Ps. 4-dr. LS Sedan	54/HVB	192.2"	3,071	429.6	\$15,494.00	\$15,944.00
6-Ps. 4-dr. LS Wagon	74/HVB	193.2"	3,157	439.2	16,272.00	16,722.00

FORD SABLE Options: Radios, AM/FM/Cassette/Search, 2 lbs.; \$137; Air Conditioning, 50 lbs.; \$183; Tilt Wheel, 1 lb.; \$124; Speed Control, 4 lbs.; \$182; Power Windows, 10 lbs.; \$296; Power Seat, 6-Way Driver, 10 lbs.; \$251; Power Seats, 6-Way Dual Power, 2 Seats, 20 lbs.; \$502; Moonroof, Power, 42 lbs.; \$741; Third Seat/Wagon, 20 lbs.; \$155; Steel Wheels, 17 lbs.; \$123; Keyless Entry System, 13 lbs.; \$202; Ext. Fuel Tank, 17 lbs.; \$46; Power Lock Group: GS, \$287; LS, \$195

### CODES FOR OBJECT CONTACTED

(99) Unknown event or object

[illegible]

## COLLISION DEFORMATION CLASSIFICATION

## HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>01</u>	6. <u>LO</u>	7. <u>L</u>	8. <u>Z</u>	9. <u>E</u>	10. <u>W</u>	11. <u>02</u>

## Second Highest Delta "V"

12. <u>02</u>	13. <u>01</u>	14. <u>09</u>	15. <u>L</u>	16. <u>F</u>	17. <u>E</u>	18. <u>E</u>	19. <u>01</u>
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## CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

## HIGHEST DELTA "V"

20. <u>L</u>	21. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	22. <u>±D</u>
<u>188</u>	<u>000</u>	<u>005</u>	<u>011</u>	<u>015</u>	<u>016</u>	<u>000</u>	<u>+ 121</u>

## Second Highest Delta "V"

23. <u>L</u>	24. <u>C<sub>1</sub></u>	<u>C<sub>2</sub></u>	<u>C<sub>3</sub></u>	<u>C<sub>4</sub></u>	<u>C<sub>5</sub></u>	<u>C<sub>6</sub></u>	25. <u>±D</u>
<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>+</u>
<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>-</u>

## 26. Undeformed End Width

(Coded when highest severity impact is an end plane impact.)

--- Code to the nearest centimeter

(250) 250 centimeters or more

(998) No highest severity end plane impact

(999) Unknown

998

## 27. Direct Damage Width

(For highest severity impact)

--- Code to the nearest centimeter

(250) 250 centimeters or more

(999) Unknown

169

## 28. Original Wheelbase

--- Code to the nearest centimeter

(650) 650 centimeters or more

(999) Unknown

--- inches X 2.54 = --- centimeters

269

## 29. Original Average Track Width

--- Code to the nearest centimeter

(185) 185 centimeters or more

(999) Unknown

--- inches X 2.54 = --- centimeters

155

		FUEL SYSTEM	
30. Are CDCs Documented but Not Coded on The Automated File?	<u>0</u>	35. Location of Fuel Tank-1 Filler Cap	<u>3</u>
(0) No		36. Location of Fuel Tank-2 Filler Cap	<u>0</u>
(1) Yes		(0) No fuel tank	
		(1) On back plane	
		(2) Aft of center of the rear wheels (rear axle) on left side plane	
31. Researcher's Assessment of Vehicle Disposition	<u>1</u>	(3) Aft of center of the rear wheels (rear axle) on right side plane	
(0) Not towed due to vehicle damage		(4) Forward of center of the rear wheels (rear axle) on left side plane	
(1) Towed due to vehicle damage		(5) Forward of center of the rear wheels (rear axle) on right side plane	
(9) Unknown		(6) Over the center of the rear wheels (rear axle) on left side plane	
		(7) Over the center of the rear wheels (rear axle) on right side plane	
32. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle?	<u>0</u>	(8) Other (specify): _____	
(0) No post manufacturer modifications		(9) Unknown	
(1) Yes - post manufacturer modifications (specify): _____			
_____		37. Type of Fuel Tank-1	<u>1</u>
_____		38. Type of Fuel Tank-2	<u>0</u>
(Include photograph of CERTIFICATION PLACARD in case report)		(0) No fuel tank (electrical vehicle)	
(9) Unknown if vehicle is modified		(1) Metallic	
		(2) Non-metallic	
		(9) Unknown	
<b>FIRE OCCURRENCE</b>		39. Location of Fuel Tank-1	<u>4</u>
33. Fire Occurrence	<u>0</u>	40. Location of Fuel Tank-2	<u>0</u>
(0) No fire		(0) No fuel tank	
Yes, fire occurred		(1) Aft of center of the rear wheels (rear axle) centered	
(1) Minor		(2) Aft of center of the rear wheels (rear axle) left side	
(2) Major		(3) Aft of center of the rear wheels (rear axle) right side	
(9) Unknown		(4) Forward of center of the rear wheels (rear axle) centered	
		(5) Forward of center of the rear wheels (rear axle) left side	
34. Origin of Fire	<u>0</u>	(6) Forward of center of the rear wheels (rear axle) right side	
(0) No fire		(7) Over center of the rear wheels (rear axle)	
(1) Vehicle exterior (front, side, back, top)		(8) Other (specify): _____	
(2) Exhaust system		(9) Unknown	
(3) Fuel tank (and other fuel retention system parts)			
(4) Engine compartment		41. Damage to Fuel Tank-1	<u>1</u>
(5) Cargo/trunk compartment		42. Damage to Fuel Tank-2	<u>0</u>
(6) Instrument panel		(0) No fuel tank	
(7) Passenger compartment area		(1) No damage to fuel tank	
(8) Other location (specify): _____		(2) Deformed, no seam failure	
(9) Unknown		(3) Deformed, with a seam failure	
		(4) Punctured	
		(5) Lacerated (ripped)	
		(6) Abraded (scraped)	
		(7) Filler neck separation from the fuel tank	
		(8) Other damage (specify): _____	
		(9) Unknown	

43. Leakage Location of Fuel System-1

1

44. Leakage Location of Fuel System-2

0

(0) No fuel tank

(1) No fuel leakage

*Primary Area Of Leakage*

(2) Tank

(3) Filler neck

(4) Cap

(5) Lines/pump/filter

(6) Vent/emission recovery

(8) Other (specify): \_\_\_\_\_

(9) Unknown

45. Fuel Type-1

01

46. Fuel Type-2

00*Single Fuel Type*

(00) No fuel tank

(01) Gasoline

(02) Diesel

(03) CNG (Compressed Natural Gas)

(04) LPG (Liquid Petroleum Gas) also known as Propane

(05) LNG (Liquid Natural Gas)

(06) Methanol (M100 or M85)

(07) Ethanol (E100 or E85)

(08) Other (Hydrogen or others) (specify): \_\_\_\_\_

*Electric Powered or Electric/Solar Powered Vehicles*

(10) Lead Acid Battery

(11) Nickel-Iron Battery

(12) Nickel-Cadmium Battery

(13) Sodium Metal Chloride Battery

(14) Sodium Sulfur Battery

(18) Other (Specify): \_\_\_\_\_

(98) Other Hybrid (specify): \_\_\_\_\_

(99) Unknown fuel type

47. Is This Vehicle Equipped With More Than Two Fuel Tanks?

0

(0) No (one or two tanks only)

*Yes - More Than Two Tanks*(1) Yes -- no damage to any tank or filler cap and no fuel system leakage(2) Yes -- no damage to any tank or filler cap but there is fuel system leakage (specify leakage location): \_\_\_\_\_(3) Yes -- damage to an additional tank or filler cap and there is fuel system leakage (specify the following):

Type of tank \_\_\_\_\_

Tank location \_\_\_\_\_

Filler cap location \_\_\_\_\_

Tank damage \_\_\_\_\_

Location of leakage \_\_\_\_\_

Type of fuel \_\_\_\_\_

(9) Unknown if more than two tanks

**COMMENTS**


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\*\*\* STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED \*\*\*

(GV10 = 0)

DO NOT COMPLETE THE INTERIOR VEHICLE FORM.





## INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number 10

2. Case Number - Stratum 9521

3. Vehicle Number 02

### INTEGRITY

4. Passenger Compartment Integrity 06

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (back door)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window (backlight)

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window (side window and backlight)

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 3 8. RR 1 9. TG/H 1

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09  $\neq$  2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

### GLAZING

Type of Window/Windshield Glazing

15. WS 1 16. LF 2 17. RF 2 18. LR 2 19. RR 2

20. BL 2 21. Roof 0 22. Other 2

(0) No glazing

(1) AS-1 - Laminated

(2) AS-2 - Tempered

(3) AS-3 - Tempered-tinted (original)

(4) AS-2 - Tempered-with after market tint

(5) AS-3 - Tempered-tinted (with additional after market tint)

(6) AS-14 - Glass/Plastic

(7) Glazing removed prior to accident

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

23. WS 1 24. LF 2 25. RF 2 26. LR 2 27. RR 2

28. BL 1 29. Roof 0 30. Other 1

(0) No glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(7) Glazing removed prior to accident

(9) Unknown

Glazing Damage from Impact Forces

31. WS 1 32. LF 1 33. RF 1 34. LR 6 35. RR 1

36. BL 1 37. Roof 0 38. Other 1

(0) No glazing

(1) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(9) Unknown if damaged

Glazing Damage from Occupant Contact

39. WS 1 40. LF 1 41. RF 1 42. LR 1 43. RR 1

44. BL 1 45. Roof 0 46. Other 1

(0) No glazing

(1) No occupant contact to glazing

(2) Glazing contacted by occupant but no glazing damage

(3) Glazing in place and cracked by occupant contact

(4) Glazing in place and holed by occupant contact

(5) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(6) Glazing out-of-place by occupant contact and holed by occupant contact

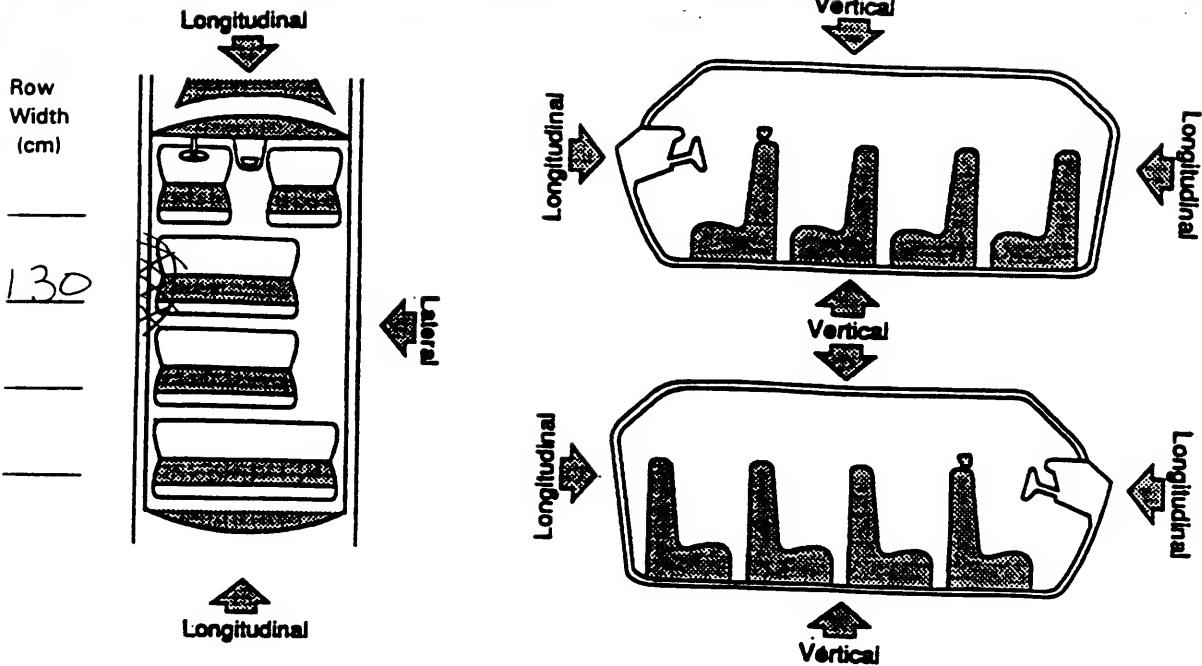
(7) Glazing removed prior to accident

(8) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

# INTRUSION WORKSHEET

Note: Sketch intruded areas



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters)				DOMINANT CRUSH DIRECTION	
		COMPARISON VALUE	-	INTRUDED VALUE	=		
21	Door Panel	65	-	58	=	7	LAT
21	seat cushion	69	-	59	=	10	LAT
21	seat Back	71	-	65	=	6	LAT
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
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			-		=		
			-		=		
			-		=		
			-		=		
			-		=		
			-		=		

Document no more than the 15 most severe intrusions

## OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. <u>2</u> <u>1</u>	48. <u>2</u> <u>5</u>	49. <u>2</u>	50. <u>3</u>
2nd	51. <u>2</u> <u>1</u>	52. <u>1</u> <u>1</u>	53. <u>1</u>	54. <u>3</u>
3rd	55. <u>2</u> <u>1</u>	56. <u>2</u> <u>1</u>	57. <u>1</u>	58. <u>3</u>
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

## LOCATION OF INTRUSION

Front Seat  
 (11) Left  
 (12) Middle  
 (13) Right

Second Seat  
 (21) Left  
 (22) Middle  
 (23) Right

Third Seat  
 (31) Left  
 (32) Middle  
 (33) Right

Fourth Seat  
 (41) Left  
 (42) Middle  
 (43) Right

(97) Catastrophic  
 (98) Other enclosed area (specify)

(99) Unknown

## INTRUDING COMPONENT

## Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Side panel - forward of the A1/A2-pillar
- (11) Door panel (side)
- (12) Side panel - rear of the B-pillar
- (13) Roof (or convertible top)
- (14) Roof side rail
- (15) Windshield
- (16) Windshield header
- (17) Window frame
- (18) Floor pan (includes sill)
- (19) Backlight header
- (20) Front seat back
- (21) Second seat back
- (22) Third seat back
- (23) Fourth seat back
- (24) Fifth seat back
- (25) Seat cushion
- (26) Back door/panel (e.g., tailgate)
- (27) Other interior component (specify): \_\_\_\_\_

## Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify): \_\_\_\_\_
- (32) Other exterior object in the environment (specify): \_\_\_\_\_
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): \_\_\_\_\_
- (99) Unknown

## MAGNITUDE OF INTRUSION

- (1)  $\geq 3$  centimeters but  $< 8$  centimeters
- (2)  $\geq 8$  centimeters but  $< 15$  centimeters
- (3)  $\geq 15$  centimeters but  $< 30$  centimeters
- (4)  $\geq 30$  centimeters but  $< 46$  centimeters
- (5)  $\geq 46$  centimeters but  $< 61$  centimeters
- (6)  $\geq 61$  centimeters
- (7) Catastrophic
- (9) Unknown

## DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

## STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	-	DAMAGE VALUE	=	DEFORMATION
------------------	---	--------------	---	-------------

	-	No DEFORMATION	=	
--	---	----------------	---	--

	-		=	
--	---	--	---	--

	-		=	
--	---	--	---	--

	-		=	
--	---	--	---	--

## STEERING COLUMN

## INSTRUMENT PANEL

## 87. Steering Column Type

- (1) Fixed column  
(2) Tilt column  
(3) Telescoping column  
(4) Tilt and telescoping column  
(8) Other column type (specify): \_\_\_\_\_

(9) Unknown

## 88. Tilt Steering Column Adjustment

- (0) No tilt steering column  
(1) Full up  
(2) Between full up and center  
(3) Center  
(4) Between center and full down  
(5) Full down  
(9) Unknown

## 89. Telescoping Steering Column Adjustment

- (0) No telescoping steering column  
(1) Full back  
(2) Between full back and midpoint  
(3) Midpoint  
(4) Between midpoint and full forward  
(5) Full forward  
(9) Unknown

## 90. Steering Rim/Spoke Deformation

- Code actual measured  
deformation to the nearest centimeter  
(00) No steering rim deformation  
(01-14) Actual measured value in centimeters  
(15) 15 centimeters or more  
(98) Observed deformation cannot be measured  
(99) Unknown

## 91. Location of Steering Rim/Spoke Deformation

- (00) No steering rim deformation

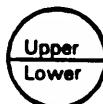
## Quarter Sections

- (01) Section A  
(02) Section B  
(03) Section C  
(04) Section D



## Half Sections

- (05) Upper half of rim/spoke  
(06) Lower half of rim/spoke  
(07) Left half of rim/spoke  
(08) Right half of rim/spoke



- (09) Complete steering wheel collapse  
(10) Undetermined location  
(99) Unknown

## 92. Odometer Reading

\_\_\_\_\_ kilometers  
Code to the nearest 1,000 kilometers  
(000) No odometer  
(001) Less than 1,500 kilometers  
(500) 499,500 kilometers or more  
(999) Unknown  
- 53,250 miles X 1.6093 = 85,698 kilometers

Source: ODOMETER

## 93. Instrument Panel Damage from Occupant Contact?

- (0) No  
(1) Yes  
(9) Unknown

## 94. Type of Knee Bolster Covering

- (0) No knee bolster  
(1) Padded  
(2) Rigid plastic  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

## 95. Knee Bolsters Deformed from Occupant Contact?

- (0) No knee bolster  
(1) No deformation  
(2) Yes - deformation  
(9) Unknown

## 96. Did Glove Compartment Door Open During Collision(s)?

- (0) No glove compartment door  
(1) No - door did not open  
(2) Yes - door opened  
(9) Unknown

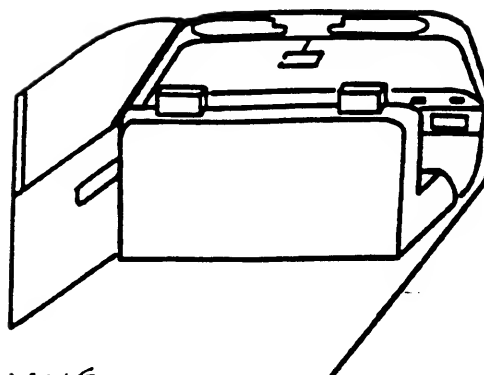
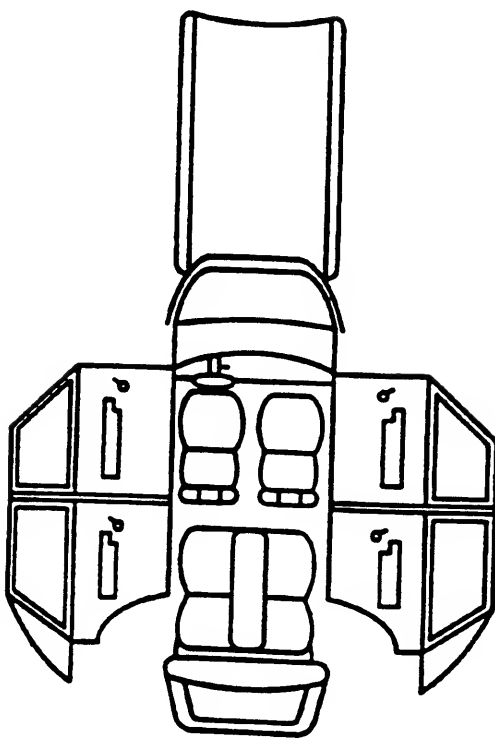
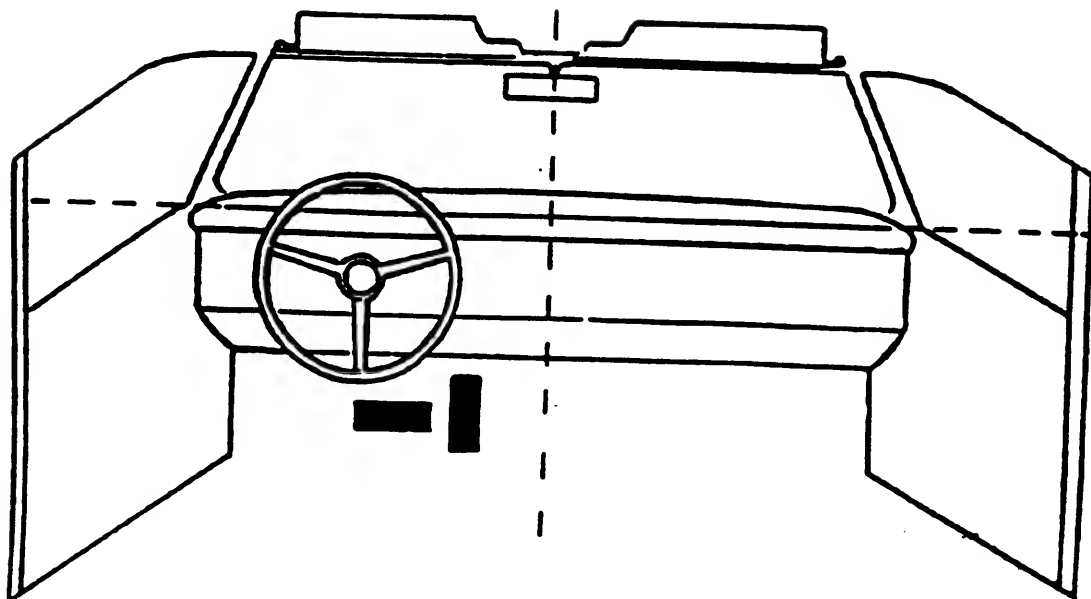
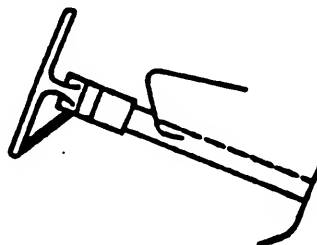
## 97. Adaptive (Assistive) Driving Equipment

- (0) No adaptive driving equipment  
(1) Adaptive driving equipment installed (Check all that apply.)  
[ ] Hand controls for braking/acceleration  
[ ] Steering control devices (attached to OEM steering wheel)  
[ ] Steering knob attached to steering wheel  
[ ] Low effort power steering (unit or device)  
[ ] Replacement steering wheel (i.e., reduced diameter)  
[ ] Joy-stick steering controls  
[ ] Wheelchair tie-downs  
[ ] Modification to seat belts (specify): \_\_\_\_\_  
[ ] Additional or relocated switches (specify): \_\_\_\_\_  
[ ] Raised roof  
[ ] Wall-mounted head rest (used behind wheelchair)  
[ ] Other adaptive device (specify): \_\_\_\_\_

(9) Unknown

## VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment

NONE  
Visible

Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).  
 Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.  
 Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A					
B					
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

## FRONT

- (001) Windshield  
 (002) Mirror  
 (003) Sunvisor  
 (004) Steering wheel rim  
 (005) Steering wheel hub/spoke  
 (006) Steering wheel (combination of codes 004 and 005)  
 (007) Steering column, transmission selector lever, other attachment  
 (008) Cellular telephone or CB radio  
 (009) Add on equipment (e.g., tape deck, sir conditioner)  
 (010) Left instrument panel end below  
 (011) Center instrument panel end below  
 (012) Right instrument panel end below  
 (013) Glove compartment door  
 (014) Knee bolster  
 (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)  
 (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)  
 (017) Windshield reinforced by exterior object, (specify):  
 (019) Other front object (specify):

## CODES FOR INTERIOR COMPONENTS

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests  
 (052) Left side hardware or armrest  
 (053) Left A (A1/A2)-pillar  
 (054) Left B-pillar  
 (055) Other left pillar (specify):  
 (056) Left side window glass  
 (057) Left side window frame  
 (058) Left side window sill  
 (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.  
 (060) Other left side object (specify):

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests  
 (102) Right side hardware or armrest  
 (103) Right A (A1/A2)-pillar  
 (104) Right B-pillar  
 (105) Other right pillar (specify):  
 (106) Right side window glass  
 (107) Right side window frame  
 (108) Right side window sill  
 (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.  
 (110) Other right side object (specify):

## INTERIOR

- (151) Seat, back support  
 (152) Belt restraint webbing/buckle  
 (153) Belt restraint B-pillar or door frame attachment point  
 (154) Other restraint system component (specify):  
 (155) Head restraint system  
 (160) Other occupants (specify):  
 (161) Interior loose objects  
 (162) Child safety seat (specify):  
 (163) Other interior object (specify):

## AIR BAG

- (170) Air bag-driver side  
 (175) Air bag compartment cover-driver side  
 (180) Air bag-passenger side  
 (185) Air bag compartment cover-passenger side  
 (190) Other air bag (specify)  
 (195) Other air bag compartment cover (specify)

## ROOF

- (201) Front header  
 (202) Rear header  
 (203) Roof left side rail  
 (204) Roof right side rail  
 (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)  
 (252) Floor or console mounted transmission lever, including console  
 (253) Parking brake handle  
 (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)  
 (302) Backlight storage rack, door, etc.  
 (303) Other rear object (specify):

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration  
 (402) Steering control devices (attached to OEM steering wheel)  
 (403) Steering knob attached to steering wheel  
 (405) Replacement steering wheel (i.e., reduced diameter)  
 (406) Joy stick steering controls  
 (407) Wheelchair tie-downs  
 (408) Modification to seat belts, (specify):  
 (409) Additional or relocated switches, (specify):  
 (410) Raised roof  
 (411) Wall mounted head rest (used behind wheelchair)  
 (412) Other adaptive device (specify):

## CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain  
 (2) Probable  
 (3) Possible  
 (9) Unknown

# MANUAL RESTRAINTS

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form. If a Child safety seat is present, encode the data on the back of this page. If the vehicle has automatic restraints available, encode the appropriate data on the back of the previous page.

		Left	Center	Right
FIRST	Availability	4	3	4
	Evidence of usage	04	03	04
	Used in this crash?		00	0
	Proper Use			
	Failure Modes	1	0	1
	Anchorage Adjustment	1	0	1
SECOND	Availability	4	3	4
	Evidence of usage	04		04
	Used in this crash?	00		00
	Proper Use	0		00
	Failure Modes	0		0
	Anchorage Adjustment	1		0
OTHER	Availability			1
	Evidence of usage			
	Used in this crash?			
	Proper Use			
	Failure Modes			
	Anchorage Adjustment			

## Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

## Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

## Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

## Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

## Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of manual belt system (specify):

(9) Unknown

## Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

## Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

## Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment



**AUTOMATIC RESTRAINTS**

NOTES: Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

**AIR BAGS**

		Left Front	Right Front	Other
F I R S T	Availability/Function	0	0	0
	Deployment	0	0	0
	Failure	0	0	0

**Air Bag System Availability/Function**

- (0) Not equipped/not available  
(1) Air bag

**Non-functional**

- (2) Air bag disconnected (specify): \_\_\_\_\_

- (3) Air bag not reinstalled

- (9) Unknown

**Are There Indications of Air Bag System Failure? (This Occupant Position)**

- (0) Not equipped/not available

- (1) No

- (2) Yes (specify): \_\_\_\_\_

- (9) Unknown

**Frontal Air Bag System Deployment (This Occupant Position)**

- (0) Not equipped/not available

- (1) Deployed during accident (as a result of impact)

- (2) Deployed inadvertently just prior to accident

- (3) Deployed, accident sequence undetermined

- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)

- (5) Unknown if deployed

- (7) Nondeployed

- (9) Unknown

**Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)**

- (0) Not equipped with an "other" air bag

- (1) Deployed during accident (as a result of impact)

- (2) Deployed inadvertently just prior to accident

- (3) Deployed, details unknown

- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)

- (5) Unknown if deployed

- (7) Nondeployed

- (9) Unknown

**AUTOMATIC BELTS**

		Left	Right
F I R S T	Availability/Function	0	0
	Use	0	0
	Type	0	0
	Proper Use	0	0
	Failure Modes	0	0

**Automatic (Passive) Belt System Availability/Function**

- (0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

**Non-functional**

- (4) Automatic belts destroyed or rendered inoperative

- (9) Unknown

**Automatic (Passive) Belt System Use**

- (0) Not equipped/not available/destroyed or rendered inoperative

- (1) Automatic belt in use

- (2) Automatic belt not in use (manually disconnected, motorized track inoperative)

- (3) Automatic belt use unknown

- (9) Unknown

**Automatic (Passive) Belt System Type**

- (0) Not equipped/not available

- (1) Non-motorized system

- (2) Motorized system

- (9) Unknown

**Proper Use of Automatic (Passive) Belt System**

- (0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with child safety seat

**Automatic Belt Used Improperly**

- (3) Automatic shoulder belt worn under arm

- (4) Automatic shoulder belt worn behind back

- (5) Automatic belt worn around more than one person

- (6) Lap portion of automatic belt worn on abdomen

- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

- (8) Other improper use of automatic belt system (specify): \_\_\_\_\_

- (9) Unknown

**Automatic (Passive) Belt Failure Modes During Accident**

- (0) Not equipped/not available/not in use

- (1) No automatic belt failure(s)

- (2) Torn webbing (stretched webbing not included)

- (3) Broken buckle or latchplate

- (4) Upper anchorage separated

- (5) Other anchorage separated (specify): \_\_\_\_\_

- (6) Broken retractor

- (7) Combination of above (specify): \_\_\_\_\_

- (8) Other automatic belt failure (specify): \_\_\_\_\_

- (9) Unknown

## FIRST SEAT FRONTAL AIR BAGS

**NOTES:** Encode the applicable data for the driver and first seat passenger in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
Type of air bag?	0	0
Flaps open at tear points?	0	0
Flaps damaged?	0	0
Air bag damaged?	00	00
Source of air bag damage	00	00
Air bag tethered?	0	0
Air bag have vent ports?	0	0
Other occupant contact air bag?	0	0
Occupant wearing eyewear?	0	0

### Type of Air Bag

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

### Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

### Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

### Was There Damage To The Air Bag?

- (00) Not equipped/not available
- (01) Not damaged

#### Yes - Air Bag Damage

- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify):

- (95) Damaged, details unknown
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

### Source of Air Bag Damage

- (00) Not equipped/not available
- (01) Not damaged
- (02) Object worn by occupant, (specify):
- (03) Object carried by occupant, (specify):
- (04) Adaptive/assistive controls, (specify):
- (05) Fire in vehicle
- (06) Thermal burns
- (07) Rescue or emergency efforts
- (88) Other damage source (specify):

- (95) Damaged, unknown source
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

### Was The Air Bag Tethered?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps):
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

### Did The Air Bag Have Vent Ports?

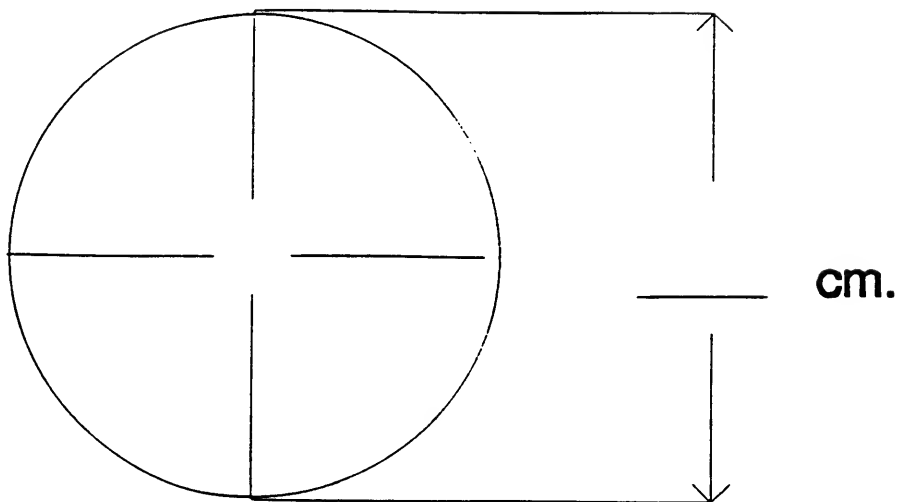
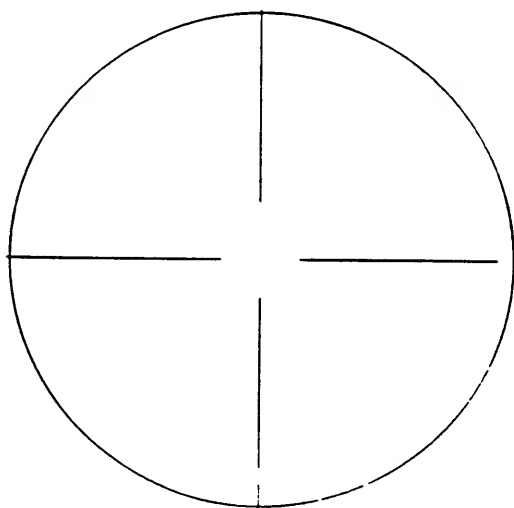
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

### Was the Air Bag in this Occupant's Position Contacted by Another Occupant?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if other occupant contact to air bag
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

### Was This Occupant Wearing Eye-wear?

- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

**DRIVER AIR BAG DAMAGE AND CONTACT SKETCHES****1. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Front)****2. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Back)**

### DRIVER AIR BAG SKETCHES (Cont'd)

#### 3. DRIVER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

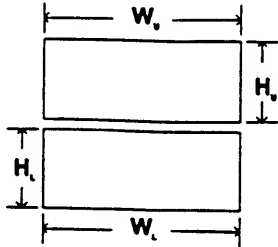
b. Lower Flap

width ( $W_U$ ) \_\_\_\_\_

width ( $W_L$ ) \_\_\_\_\_

height ( $H_U$ ) \_\_\_\_\_

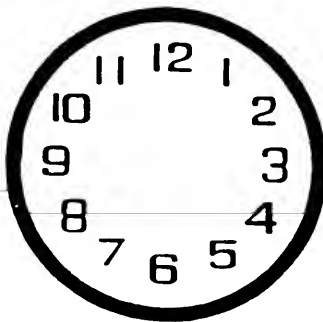
height ( $H_L$ ) \_\_\_\_\_

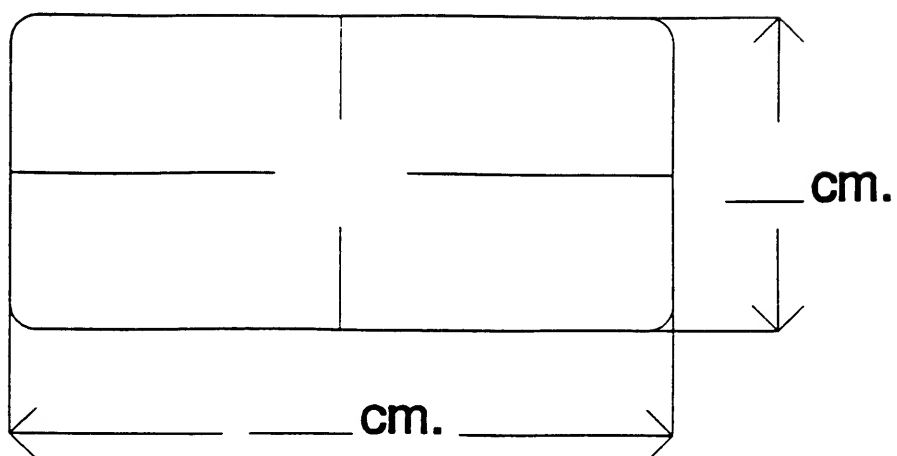
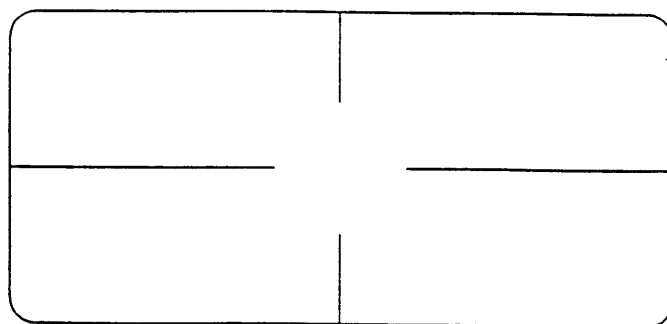


#### 4. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

#### 5. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

#### 6. SKETCH LOCATION OF CIRCULAR AIR BAG VENT PORTS



**PASSENGER AIR BAG DAMAGE AND CONTACT SKETCHES****1. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Front)****2. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Back)**

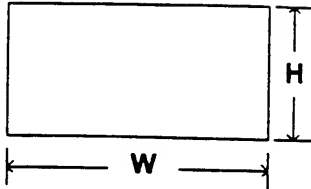
## PASSENGER AIR BAG SKETCHES (Cont'd)

### 3. PASSENGER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

a. Flap

width (W) \_\_\_\_\_

height (H) \_\_\_\_\_



### 4. PASSENGER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

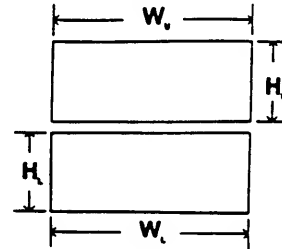
b. Lower Flap

width ( $W_u$ ) \_\_\_\_\_

width ( $W_l$ ) \_\_\_\_\_

height ( $H_u$ ) \_\_\_\_\_

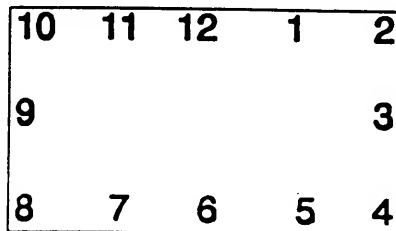
height ( $H_l$ ) \_\_\_\_\_



### 5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

### 6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

### 7. SKETCH LOCATION OF RECTANGULAR AIR BAG VENT PORTS



**"OTHER" AIR BAG DAMAGE AND CONTACT SKETCHES**

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Front)

2. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Back)

**"OTHER" AIR BAG SKETCHES (Cont'd)**

**3. SKETCH AIR BAG MODULE FLAP AND SIZE OR OPENING FOR AIRBAG**

**4. SKETCH AIR BAG VENT PORTS**



**HEAD RESTRAINTS/SEAT EVALUATION**

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
<b>F I R S T</b>	Head Restraint Type/Damage	3	0	3
	Seat Type	06	06	06
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
	Seat Track Position	6	2	2
	Seat Back Incline Pre/Post Impact	14		14
<b>S E C O N D</b>	Head Restraint Type/Damage	1	0	1
	Seat Type	03	03	03
	Seat Performance	1	1	1
	Seat Orientation	1	1	1
	Seat Track Position	1	1	1
	Seat Back Incline Pre/Post Impact	01	01	01
<b>T H I R D</b>	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
	Seat Track Position			
	Seat Back Incline Pre/Post Impact			
<b>O T H E R</b>	Head Restraint Type/Damage			
	Seat Type			
	Seat Performance			
	Seat Orientation			
	Seat Track Position			
	Seat Back Incline Pre/Post Impact			

**DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE  
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)**

## HEAD RESTRAINTS/SEAT EVALUATION

## Head Restraint Type/Damage by Occupant at This Occupant Position

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other  
Specify: \_\_\_\_\_
- (9) Unknown

## Seat Type (this Occupant Position)

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Other seat type (specify): \_\_\_\_\_
- (10) Box mounted seat (i.e., van type)
- (99) Unknown

## Seat Performance (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

## Seat Orientation (this Occupant Position)

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

## Seat Track Adjusted Position Prior To Impact

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track

## Adjustable Seat Track

- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

## Seat Back Incline Prior and Post Impact

- (00) Occupant not seated or no seat
- (01) Not adjustable

## Upright prior to impact

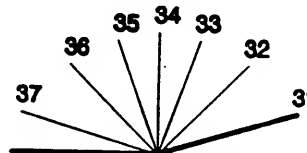
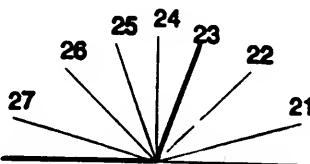
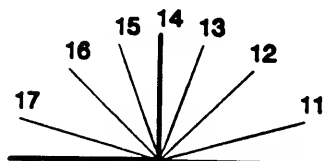
- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

## Slightly reclined prior to impact

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

## Completely reclined prior to impact

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position
- (99) Unknown



Coding diagrams for Seat Back Incline Position Prior and Post Impact

DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE  
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)

## CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation		N O N E				
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

**1. Type of Child Safety Seat**

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify): \_\_\_\_\_
- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

**2. Child Safety Seat Orientation**

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify): \_\_\_\_\_
- (09) Unknown orientation
- Designed for Forward Facing for This Age/Weight
- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify): \_\_\_\_\_
- (19) Unknown orientation
- Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify): \_\_\_\_\_
- (29) Unknown orientation
- (99) Unknown if child safety seat used

**3. Child Safety Seat Harness Usage**

**4. Child Safety Seat Shield Usage**

**5. Child Safety Seat Tether Usage**

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat
- Not Designed with Harness/Shield/Tether
- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used
- Designed With Harness/Shield/Tether
- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used
- Unknown If Designed With Harness/Shield/Tether
- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used
- (99) Unknown if child safety seat used

**6. Child Safety Seat Make/Model**

(Specify make/model and occupant number)

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**EJECTION/ENTRAPMENT DATA**

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

**EJECTION**      No ☒      Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

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Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

**Ejection**

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

**Ejection Area**

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

**(7) Roof**

- (8) Other area (e.g., back of pickup, etc.) (specify):

**(9) Unknown****Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

**(5) Integral structure**

- (8) Other medium (specify):

**(9) Unknown****Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

**ENTRAPMENT**      No ☒      Yes ☐

Describe entrapment mechanism:

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Component(s):

(Note in vehicle interior diagram)

**Appendix G:**

**NASS CDS INTERVIEW FORM:**

**CASE VEHICLE DRIVER**



## INTERVIEW FORM (A)

1. Primary Sampling Unit Number <u>10</u>	Interviewee(s) Role or Name(s):
2. Case Number - Stratum <u>9521</u>	<u>DRIVER of case vehicle</u>
3. Vehicle Number <u>01</u>	

Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.

If the driver was not the person interviewed, was an appointment made for a follow-up interview?

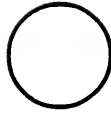
### DRIVER'S DESCRIPTION OF ACCIDENT EVENTS

I was S/B ON the . Going the  
SPEED LIMIT (45) APPROACHING , SAW a  
guy on (R) approach intersection And he  
stopped in my lane for SEMI coming  
the other way. I new I was going to  
hit him in door so I turned to Right  
to avoid hitting his door After hitting  
him I turned back left to avoid going  
into ditch on (R). I didnt want to roll  
VAN. They ( Parents ) told me  
to put him in front.  
SPD Limit 45 during the construction  
I had my lights on

### OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS

### SPECIFIC QUESTIONS TO ASK INTERVIEWEE

## ACCIDENT DIAGRAM



NORTH

The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.

## CRASH DATA INFORMATION

## IF POSSIBLE OBTAIN THIS INFORMATION FROM THE DRIVER:

SOURCE OF INFORMATION:	<input checked="" type="checkbox"/> Driver <input type="checkbox"/> Other occupant <input type="checkbox"/> Relative/friend
In which direction were you traveling?	<input type="checkbox"/> North <input checked="" type="checkbox"/> South <input type="checkbox"/> East <input type="checkbox"/> West (Or where were they coming from or going to?)
What lane were you in?	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> Other Note: lane 1 is the right curb lane
What was the condition of the roadway?	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Snow <input type="checkbox"/> Slush <input type="checkbox"/> Ice <input type="checkbox"/> Sand, dirt, oil <input type="checkbox"/> Other (specify)
What was the weather like? (Check all that apply)	<input type="checkbox"/> No adverse conditions <u>misty</u> <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Fog <input type="checkbox"/> Sleet <input type="checkbox"/> Hail <input type="checkbox"/> Snow <input type="checkbox"/> Other (specify)
Was there any type of sign or signal present?  (check all that apply)	<input type="checkbox"/> Traffic control signal (includes flashing beacons, lane control signals, and green / amber / red signal) <input type="checkbox"/> Stop sign <input type="checkbox"/> Yield sign <input type="checkbox"/> School zone sign <input type="checkbox"/> Other regulatory sign (No "U" turn, left turn only, wrong way, etc.) specify: <input checked="" type="checkbox"/> Warning sign (Winding road sign, stop ahead, intersection signs, etc.) specify: <u>construction zone - SPD limit 45mph</u> <input type="checkbox"/> Miscellaneous control (including railroad controls) specify: <input type="checkbox"/> None <input type="checkbox"/> Unknown
If a traffic control device was present, was it functioning properly at the time of the crash?	<input type="checkbox"/> No traffic control device present <input type="checkbox"/> Not functioning properly (includes defaced, badly worn, covered with snow, rotated etc.) specify: <input checked="" type="checkbox"/> Functioning properly <input type="checkbox"/> Unknown
Can you estimate your travel speed before the crash? (in mph)	<input type="checkbox"/> Stopped <input type="checkbox"/> 11-20 <input type="checkbox"/> 31-40 <input type="checkbox"/> 51-60 <input type="checkbox"/> 70+ <input type="checkbox"/> 1-10 <input type="checkbox"/> 21-30 <input checked="" type="checkbox"/> 41-50 <u>45</u> <input type="checkbox"/> 61-70 <input type="checkbox"/> Unknown
Just before the crash, what were you doing or intending to do? (check all that apply)	<input checked="" type="checkbox"/> Going straight <input type="checkbox"/> Stopped <input type="checkbox"/> Turning left <input type="checkbox"/> Turning right <input type="checkbox"/> Slowing <input type="checkbox"/> Accelerating <input type="checkbox"/> Backing <input type="checkbox"/> Changing lanes to right <input type="checkbox"/> Other (specify): <input type="checkbox"/> Changing lanes to left
Did vehicle lose control due to weather or mechanical problems?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes (describe)
Did driver take avoidance actions? <input checked="" type="checkbox"/> Yes (Check all that apply) → <input type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Braking with lock-up <input type="checkbox"/> Accelerating <input type="checkbox"/> Other (specify): <input checked="" type="checkbox"/> Braking without lock-up <input type="checkbox"/> Steering left <input type="checkbox"/> Releasing brakes <input checked="" type="checkbox"/> Steering right
Where was vehicle at time of collision?	<input checked="" type="checkbox"/> Original travel lane <input type="checkbox"/> Different travel lane <input type="checkbox"/> In intersection <input type="checkbox"/> Off roadway to right <input type="checkbox"/> Off roadway to left <input type="checkbox"/> Other (specify):
Can you estimate your travel speed at the time of collision? (in mph)	<input type="checkbox"/> Stopped <input type="checkbox"/> 11-20 <input checked="" type="checkbox"/> 31-40 <u>35</u> <input type="checkbox"/> 51-60 <input type="checkbox"/> 70+ <input type="checkbox"/> 1-10 <input type="checkbox"/> 21-30 <input type="checkbox"/> 41-50 <input type="checkbox"/> 61-70 <input type="checkbox"/> Unknown
Describe all the impacts to the vehicle, including what the vehicle contacted) and how this vehicle moved to its stopped position, after the collision?	<u>only Remember 1</u>
What race does the driver consider themselves?	<input checked="" type="checkbox"/> White <input type="checkbox"/> American Indian, Eskimo or Aleut, Asian or Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Other (specify): <input type="checkbox"/> Unknown
Is the driver of Hispanic origin?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown



## National Accident Sampling System-Crashworthiness Data System: Interview Form

## VEHICLE INFORMATION

## ROLLOVER DATA

## DID THIS VEHICLE ROLL OVER DURING THE CRASH?

- ☐ YES -- ASK THE FOLLOWING QUESTIONS  
☒ NO -- SKIP TO "FIRE DATA" BELOW  
☐ UNKNOWN -- SKIP TO "FIRE DATA" BELOW

Describe where the rollover began	<input type="checkbox"/> On roadway <input type="checkbox"/> On shoulder <input type="checkbox"/> On roadside or median <input type="checkbox"/> Unknown
What caused the vehicle to roll over?	<input type="checkbox"/> Other vehicle (specify vehicle number) _____ <input type="checkbox"/> Contact to object (specify): _____ <input type="checkbox"/> Other cause (specify): _____ <input type="checkbox"/> Unknown
Which direction did the vehicle roll?	<input type="checkbox"/> Toward the right (passenger side) <input type="checkbox"/> Toward the left (driver side) <input type="checkbox"/> End-over-end <input type="checkbox"/> Unknown
Estimate the number of quarter turns (each side) or complete turns (4 quarter turns) the vehicle did	_____ Number of quarter turns <input type="checkbox"/> Unknown _____ Number of complete turns
When the vehicle stopped rolling over, which side was in contact with the ground?	<input type="checkbox"/> Left side <input type="checkbox"/> Top <input type="checkbox"/> Right side <input type="checkbox"/> Wheels <input type="checkbox"/> Unknown

## FIRE DATA

## DID THIS VEHICLE EXPERIENCE A FIRE?

- ☐ YES -- ASK THE FOLLOWING QUESTIONS  
☒ NO -- SKIP THIS SECTION  
☐ UNKNOWN -- SKIP THIS SECTION

Describe where the fire started, or where the smoke was first seen	<input type="checkbox"/> Under the hood <input type="checkbox"/> In the trunk/cargo area <input type="checkbox"/> Behind the instrument panel <input type="checkbox"/> Under the vehicle <input type="checkbox"/> In the passenger compartment <input type="checkbox"/> From other involved vehicle <input type="checkbox"/> Unknown
Did the fire start with the electrical system?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify): _____ <input type="checkbox"/> Unknown
Did the fire start with the fuel system?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify): _____ <input type="checkbox"/> Unknown
ASK IF THE FIRE INVOLVED THE FUEL SYSTEM. Which part of the fuel system may have been involved?	<input checked="" type="checkbox"/> Fuel tank <input checked="" type="checkbox"/> Fuel lines <input checked="" type="checkbox"/> Engine compartment (specify component if known) <input type="checkbox"/> Unknown

Describe any additional rollover or fire information here:

## ADDITIONAL VEHICLE INFORMATION

IF THIS VEHICLE HAS NOT BEEN INSPECTED ASK THIS QUESTION:  What is the year, make and model of your vehicle?	Year: 19 <u>96</u> Make: <u>Dodge</u> Model: <u>CARAVAN</u>
Was there any damage to the vehicle that is not related to this crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe:  <input type="checkbox"/> Unknown
Did any of the doors or hatch come open during the crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe:  <input type="checkbox"/> Unknown
Did any of the windows break during the crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe:  <input type="checkbox"/> Unknown
Were any windows open (O) or partially open (P) prior to the crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *      * "O" = open    "P" = partially open  <input type="checkbox"/> WS <input type="checkbox"/> LF <input type="checkbox"/> RF <input type="checkbox"/> LR <input type="checkbox"/> RR <input type="checkbox"/> BL <input type="checkbox"/> Roof <input type="checkbox"/> Other <input type="checkbox"/> Unknown
Did the glove compartment door come open during the crash?	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe:  <input checked="" type="checkbox"/> Unknown
Was there any cargo in the vehicle at the time of the crash?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes - describe: <u>Baby's Diaper Bag</u> Approximate weight - <u>5</u> pounds <u>2 kg</u> <input type="checkbox"/> Unknown
Approximate mileage on the vehicle?	_____ miles <input checked="" type="checkbox"/> Unknown

Detail any notes, questions to ask interviewee (i.e., rescue personnel damage to vehicle) or directions to vehicle location here:

## SPECIAL CRASH INVESTIGATION ADDENDUM: DRIVER INFORMATION

Do you recall the type of development in the area of the crash?	<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Undeveloped <input type="checkbox"/> School <input type="checkbox"/> Other: _____
What were the weather conditions at the time of the crash?	<input type="checkbox"/> Clear (no clouds, no precipitation) <input type="checkbox"/> Cloudy (partially cloudy, no precipitation) <input type="checkbox"/> Overcast (full cloud cover, no precipitation) <input checked="" type="checkbox"/> Precipitating <input type="checkbox"/> Unknown
What was the type of precipitation?	<input type="checkbox"/> No precipitation <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Raining <input type="checkbox"/> Freezing rain <input type="checkbox"/> Sleet <input type="checkbox"/> Snowing <input type="checkbox"/> Hailing
What was the condition of the road surface?	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Snowy, slushy <input type="checkbox"/> Icy <input type="checkbox"/> Other (e.g., sand, dirt, oil on surface, etc.) <input type="checkbox"/> Unknown
How would you describe the amount of traffic at the time of the crash?	<input type="checkbox"/> Heavy <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Light <input type="checkbox"/> No other traffic present
What is your occupation?	<input type="checkbox"/> Professional <input type="checkbox"/> Technical <input type="checkbox"/> Government official <input type="checkbox"/> Management <input checked="" type="checkbox"/> Proprietors <i>owner</i> <input type="checkbox"/> Sales <input type="checkbox"/> Clerical <input type="checkbox"/> Craftsman and foreman <input type="checkbox"/> Service worker <input type="checkbox"/> Student <input type="checkbox"/> Farmers and farm-managers <input type="checkbox"/> Farm labors and foreman <input type="checkbox"/> Private household worker <input type="checkbox"/> Housewife <input type="checkbox"/> Other: _____
How long have you driven this vehicle?	Years: _____ Months: <u>3 weeks</u>
How many miles do you think that you have driven it in the last 12-month period?	Miles: <u>&lt; 1000</u>
How often do you drive this particular roadway?	<input type="checkbox"/> Daily <input type="checkbox"/> Twice weekly <input type="checkbox"/> Once weekly <input checked="" type="checkbox"/> Twice monthly <input type="checkbox"/> Once monthly <input type="checkbox"/> Very infrequently <input type="checkbox"/> First time on road
Where were you coming from just prior to the crash?	<input checked="" type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: _____
Where were you intending to go when the crash occurred?	<input type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input checked="" type="checkbox"/> Personal business <input type="checkbox"/> Other: _____

## OCCUPANT DATA QUESTIONS

How many people were in your vehicle at the time of the crash?

	DRIVER	OCCUPANT # 2	OCCUPANT #
Where was this person sitting in the vehicle?  Front Left (FL)              Second Left (2L) Front Middle (FM)          Second Middle (2M) Front Right (FR)            Second Right (2R)  Third Left (3L)              Other (SPECIFY in block) Third Middle (3M) Third Right (3R)	FRONT LEFT	FR	
What is the Sex, Height, Weight, and Age of each occupant?	<input type="checkbox"/> M <input checked="" type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant  HEIGHT: 5'9" WEIGHT: 135 AGE: 56	<input checked="" type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant  HEIGHT: _____ WEIGHT: _____ AGE: _____	<input type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months _____ <input type="checkbox"/> F - Unk. if pregnant  HEIGHT: _____ WEIGHT: _____ AGE: _____
Describe how occupant was seated  A) Kneeling or standing on seat B) Lying on or across seat C) Kneeling, standing or sitting in front of seat D) Sitting sideways, turned to side or back E) Sitting on console F) Lying back in reclined position G) Other (specify) in child safety seat H) Unknown	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input checked="" type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown  Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown  Indicate all letters that apply and describe if other than above  G	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown  Indicate all letters that apply and describe if other than above
Describe feet and hands/arms location just prior to impact (indicate all that apply)  <u>FEET</u> A) On floor or foot controls B) One or both on dash C) One or both on seat D) Other (specify) E) Unknown  <u>HANDS / ARMS</u> F) Both hands on steering wheel G) One on wheel, other hand resting or adjusting a control (specify hand on wheel and control involved) H) Dialing a cellular phone (specify location and type of phone) I) Holding a cellular phone (specify location and type of phone) J) Bracing with one or both hands K) On lap L) One or both out of window (specify) M) Other (specify) N) Unknown	Indicate all letters that apply and further describe as needed  (F)	Indicate all letters that apply and further describe as needed  Baby in REAR facing child seat.	Indicate all letters that apply and further describe as needed

Describe any additional information here:

OCCUPANT DATA CONTINUED ON NEXT PAGE

## OCCUPANT DATA QUESTIONS (continued)

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>   </u>
Was your / their back up against the seat back?	<input type="checkbox"/> No (describe) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown <u>N/A</u>	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat track, if so where was the seat located prior to impact?	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input checked="" type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat back, if so where was the seat back located prior to impact?	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined
If this seat position has an adjustable seat back, where was the seat back located after impact?	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown

Did this vehicle have a cellular phone in it during the crash?

☒ No☐ Yes - describe type: \_\_\_\_\_

(e.g., portable, mounted in vehicle, flip phone, etc.)

☐ Unknown**(Note to researcher: try to determine any driver distractions without implying fault)**

Was the driver doing any of the following? (check all that apply - and specify)

- ☐ Talking to or listening to another occupant (specify):  
☐ Was there a moving object in vehicle (specify):  
☐ Talking or listening on a cellular phone (specify):  
☐ Dialing a cellular phone (specify):  
☐ Adjusting climate control (specify):  
☐ Adjusting radio, CD or cassette player (specify):  
☐ Using other device or object in vehicle (specify):  
☐ Sleepy / asleep (specify):  
☐ Distracted by outside person, object, or event (specify):  
☐ Eating or drinking (specify):  
☐ Smoking related (specify):  
☐ Other (specify):  
☐ Unknown

Describe any additional information here:

## RESTRAINT INFORMATION

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>    </u>
<b>Describe the seat belt available for the seat position</b>  <b>NOTE: If a belt is not available for a seat position – describe if removed or not functional.</b>	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:
	<input checked="" type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", were they working properly?  <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input checked="" type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", were they working properly?  <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", were they working properly?  <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):
	<input checked="" type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input checked="" type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both
<b>Were you [and other occupant(s)] wearing a seat belt during the accident?</b>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown

## SKIP THE FOLLOWING IF NO SEAT BELT WAS WORN

<b>Describe the location of the seat belt buckle</b> <input checked="" type="checkbox"/> In front of the occupant <input type="checkbox"/> Behind the occupant <input type="checkbox"/> Other (specify):	<b>Describe the location of the seat belt buckle</b> <input checked="" type="checkbox"/> In front of the occupant <input type="checkbox"/> Behind the occupant <input type="checkbox"/> Other (specify):	<b>Describe the location of the seat belt buckle</b> <input checked="" type="checkbox"/> In front of the occupant <input type="checkbox"/> Behind the occupant <input type="checkbox"/> Other (specify):	<b>Describe the location of the seat belt buckle</b> <input checked="" type="checkbox"/> In front of the occupant <input type="checkbox"/> Behind the occupant <input type="checkbox"/> Other (specify):
---	---	---	---

Describe any breaks, tears, or failures to any of the seat belts:

## EJECTION, ENTRAPMENT, MOBILITY INFORMATION

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>  </u>
Was any part of your body thrown outside the vehicle during the crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown  * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown  * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown  * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.
Was anyone pinned in the vehicle?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown  Detail any entrapment	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown  Detail any entrapment	<input type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown  Detail any entrapment
How did you [and other occupant(s)] exit the vehicle?	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input checked="" type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input checked="" type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown

Further describe any ejection, entrapment, or mobility information here:

## AIR BAG INFORMATION

WAS THIS VEHICLE EVER EQUIPPED WITH AN AIR BAG?

☒ YES (IF "YES" COMPLETE THIS SECTION)☐ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER SIDE FRONTAL	PASSENGER SIDE FRONTAL OCCUPANT # <u>2</u>	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # _____
Had this vehicle been in any previous crashes?  <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES - continue to right <input type="checkbox"/> UNKNOWN - go to box below	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed  <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed  <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed  <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED
Type of air bag?	<input checked="" type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown
Had any prior maintenance / service been performed on the air bag system?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Did the air bag inflate during this crash?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No  If "NO" was the wiring disconnected prior to the crash?  <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No  If "NO" was the wiring disconnected prior to the crash?  <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No  If "NO" was the wiring disconnected prior to the crash?  <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Was the person in this position wearing any type of eye-wear? (Eyeglasses, sunglasses, contact lenses)	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Was the air bag in this position contacted by another occupant?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:

Describe any additional information here:



## CHILD SAFETY SEAT INFORMATION

WAS THERE A PERSON IN A CHILD SAFETY SEAT IN THIS VEHICLE?

☒ YES (IF "YES" COMPLETE THIS SECTION)☐ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>   </u>
Manufacturer and model of the safety seat?		Fisher - Price	
Type of safety seat?		<input checked="" type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown
What direction was it facing prior to the crash?		<input type="checkbox"/> Front <input checked="" type="checkbox"/> Rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown
Was a seat belt used to hold the seat in place?		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
How was the seat belt secured to the child seat?		<input type="checkbox"/> Looped through designated rear framing studs <input checked="" type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
What was the safety seat equipped with at time of purchase?		<input checked="" type="checkbox"/> Harness <input checked="" type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown
Were any of these added after they owned the safety seat?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input checked="" type="checkbox"/> None <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown

Describe any additional information here:

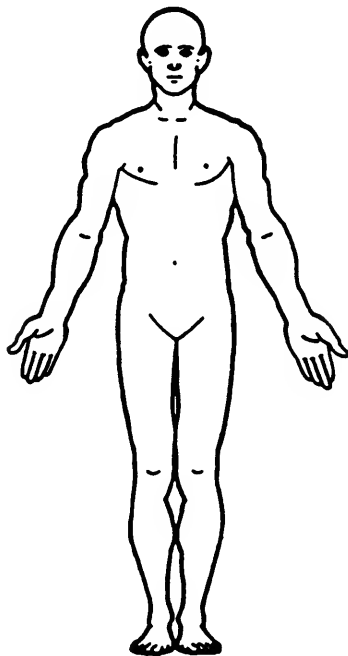
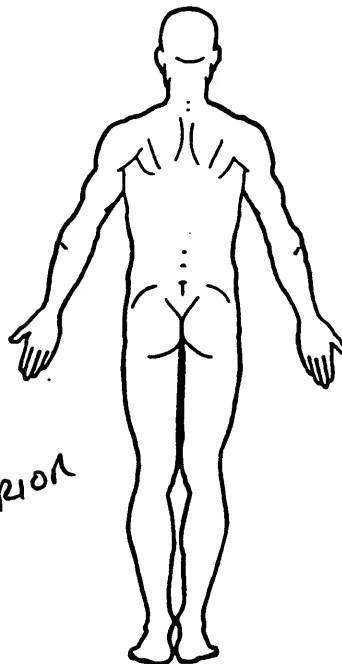
	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>   </u>
<b>Were you (or any other occupants) injured?</b> <i>• If "YES" go to manikin page and record injuries in detail</i> <i>• If "NO" ask next questions</i>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
<b>Did you (or any other occupants) receive any of the following:</b> <i>(If any injuries are checked, go to the manikin page and record location, lesion, and source)</i>	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input checked="" type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input checked="" type="checkbox"/> Broken bones <input checked="" type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):
IF ANY INJURIES ARE CHECKED, GO TO THE MANIKIN PAGE(S)			
<b>Did you (or any other occupants) receive any medical treatment?</b> (check all that apply)	<input checked="" type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown
<b>Were you (or any other occupants) hospitalized?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes - number of days <u>unk</u> <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown
<b>Were you (or any other occupants) treated and released from the emergency room?</b>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
<b>Name of medical treatment facility?</b>	<u>of Hosp</u>	<u>of Hosp</u>	
<b>Have you (or any other occupants) received any follow-up treatment?</b>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown
<b>Have you (or any other occupants) lost any days from work or school (college) due to the crash?</b>	<input checked="" type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days _____ <input type="checkbox"/> Unknown
<b>IF REQUIRED:</b> <b>Will you sign a medical release?</b> <i>• If not an in-person interview, make appointment to have release signed</i>	<input type="checkbox"/> No <input type="checkbox"/> Yes* <u>ASK MY LAWYER</u> <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown DATE: _____ TIME: _____ PLACE: _____

PSU Number 10 Case Number—Stratum 9522 Vehicle Number 01 Occupant Number 01

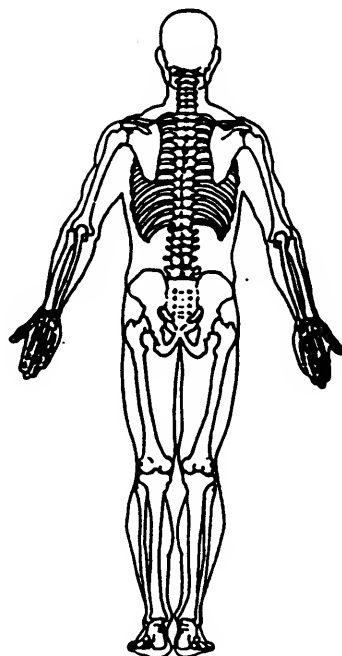
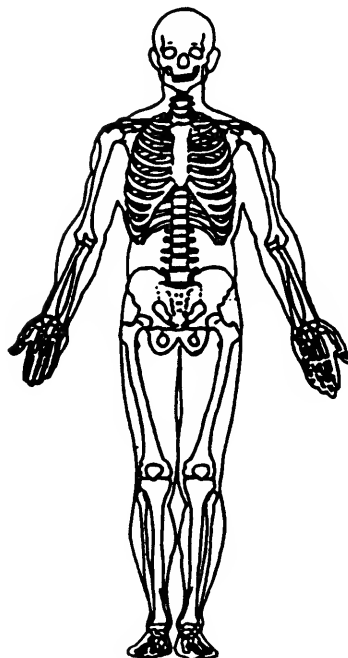
## INJURY DATA FROM INTERVIEWEE(S)

Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): DRIVER /interviewee

## SOFT TISSUE/INTERNAL INJURIES

neck  
shoulder  
BACK  
STRAINSAlthough  
I did have  
some back  
problems prior  
to accid.

## SKELETAL INJURIES



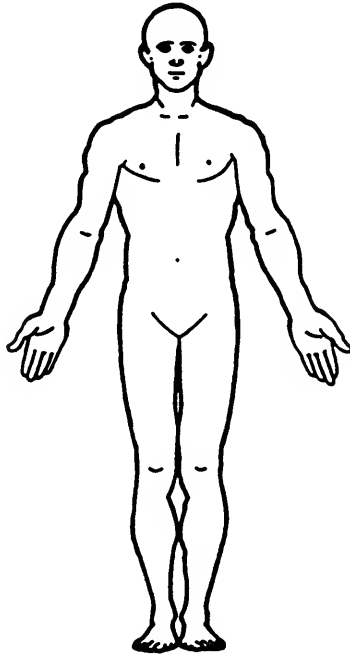
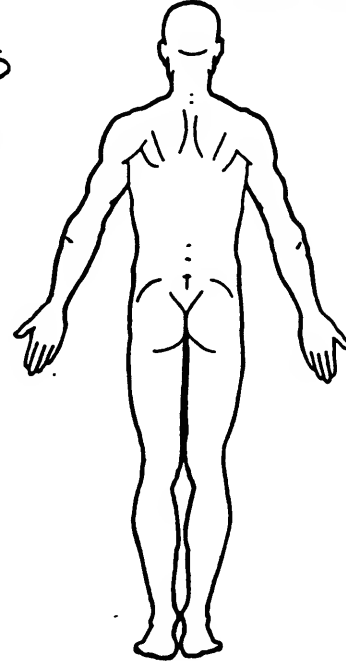
The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 10Case Number—Stratum 9522Vehicle Number 01Occupant Number 02

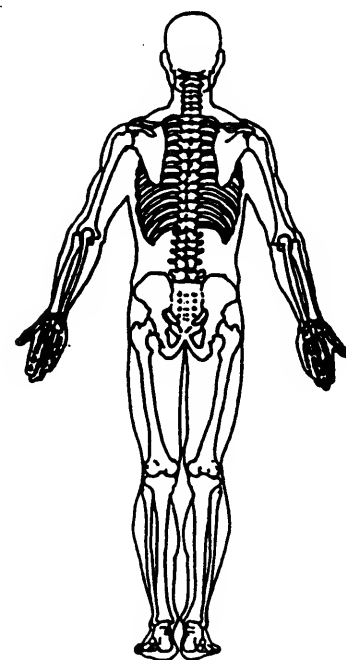
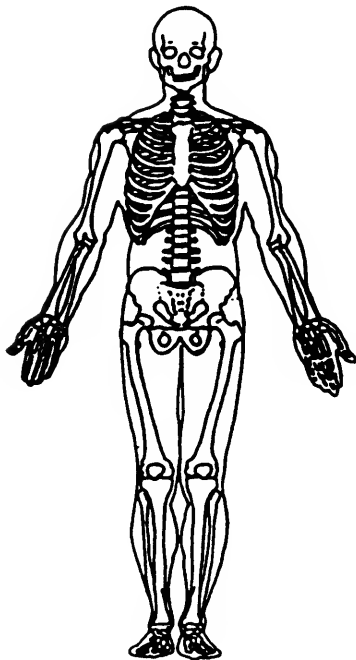
## INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s):DRIVER/  
GRANDMA

## SOFT TISSUE/INTERNAL INJURIES

5 Skull Fr's  
AIR BAG

## SKELETAL INJURIES



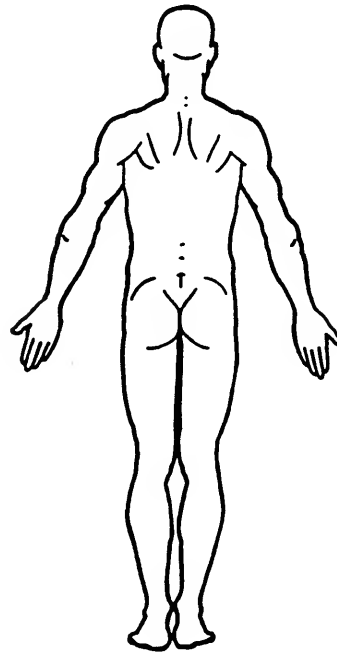
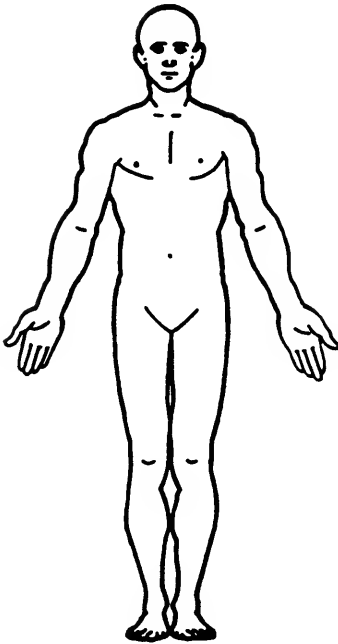
The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 10 Case Number—Stratum \_\_\_\_\_ Vehicle Number \_\_\_\_\_ Occupant Number \_\_\_\_\_

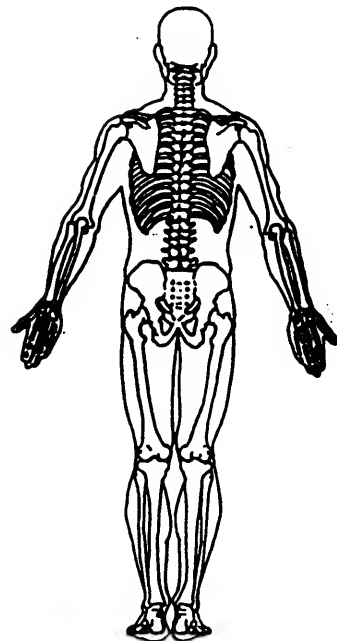
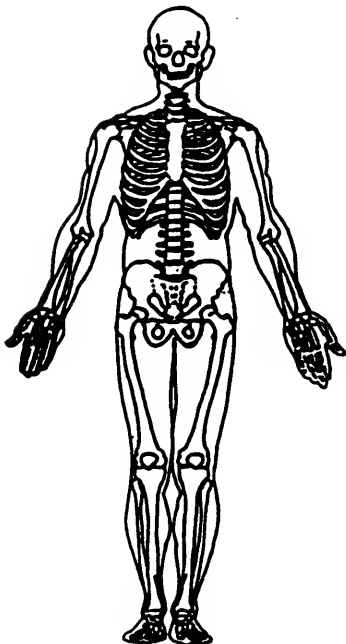
### INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): \_\_\_\_\_

#### SOFT TISSUE/INTERNAL INJURIES



#### SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

**Appendix H:**

**NASS CDS INTERVIEW FORM:**

**VEHICLE #2 DRIVER**



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## INTERVIEW FORM (A)

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number <u>10</u>	Interviewee(s) Role or Name(s): <u>V2 DRIVER</u>
2. Case Number - Stratum <u>9521</u>	
3. Vehicle Number <u>02</u>	

Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.

If the driver was not the person interviewed, was an appointment made for a follow-up interview?

### DRIVER'S DESCRIPTION OF ACCIDENT EVENTS

the Accid Report did not indicate the poor visibility. There is also construction going on there. I didn't see <sup>her</sup> I started across West when I got hit 'BANG' I did stop for stop sign I got spun around CCW ended up facing north.

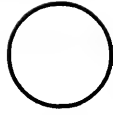
My car has no air bags, but me and my passenger were wearing our belts. I never saw other car before or after the accident.

The weather was a big factor.

### OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS

### SPECIFIC QUESTIONS TO ASK INTERVIEWEE

## ACCIDENT DIAGRAM



NORTH

The use of this diagram is optional. It may serve to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.



CRASH DATA INFORMATION	
IF POSSIBLE OBTAIN THIS INFORMATION FROM THE DRIVER:	
SOURCE OF INFORMATION:	<input checked="" type="checkbox"/> Driver <input type="checkbox"/> Other occupant <input type="checkbox"/> Relative/friend
In which direction were you traveling?	<input type="checkbox"/> North <input type="checkbox"/> South <input type="checkbox"/> East <input checked="" type="checkbox"/> West (Or where were they coming from or going to?)
What lane were you in?	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> Other Note: lane 1 is the right curb lane
What was the condition of the roadway?	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Snow <input type="checkbox"/> Slush <input type="checkbox"/> Ice <input type="checkbox"/> Sand, dirt, oil <input type="checkbox"/> Other (specify):
What was the weather like? (Check all that apply)	<input type="checkbox"/> No adverse conditions <input checked="" type="checkbox"/> Rain <input checked="" type="checkbox"/> Fog <input type="checkbox"/> Sleet <input type="checkbox"/> Hail <input type="checkbox"/> Snow <input type="checkbox"/> Other (specify):
Was there any type of sign or signal present?  (check all that apply)	<input type="checkbox"/> Traffic control signal (includes flashing beacons, lane control signals, and green / amber / red signal) <input checked="" type="checkbox"/> Stop sign <input type="checkbox"/> Yield sign <input type="checkbox"/> School zone sign <input type="checkbox"/> Other regulatory sign (No "U" turn, left turn only, wrong way, etc.) specify: _____ <input type="checkbox"/> Warning sign (Winding road sign, stop ahead, intersection signs, etc.) specify: _____ <input type="checkbox"/> Miscellaneous control (including railroad controls) specify: _____ <input type="checkbox"/> None <input type="checkbox"/> Unknown
If a traffic control device was present, was it functioning properly at the time of the crash?	<input type="checkbox"/> No traffic control device present <input type="checkbox"/> Not functioning properly (includes defaced, badly worn, covered with snow, rotated etc.) specify: _____ <input type="checkbox"/> Functioning properly <input checked="" type="checkbox"/> Unknown
Can you estimate your travel speed before the crash? (in mph)	<input type="checkbox"/> Stopped <input type="checkbox"/> 11-20 <input type="checkbox"/> 31-40 <input type="checkbox"/> 51-60 <input type="checkbox"/> 70+ <input checked="" type="checkbox"/> 1-10 <input type="checkbox"/> 21-30 <input type="checkbox"/> 41-50 <input type="checkbox"/> 61-70 <input type="checkbox"/> Unknown
Just before the crash, what were you doing or intending to do? (check all that apply)	<input checked="" type="checkbox"/> Going straight <input type="checkbox"/> Stopped <input type="checkbox"/> Turning left <input type="checkbox"/> Turning right <input type="checkbox"/> Slowing <input checked="" type="checkbox"/> Accelerating <input type="checkbox"/> Backing <input type="checkbox"/> Changing lanes to right <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Changing lanes to left
Did vehicle lose control due to weather or mechanical problems?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes (describe)
Did driver take avoidance actions? <input type="checkbox"/> Yes (Check all that apply) → <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	<input type="checkbox"/> Braking with lock-up <input type="checkbox"/> Accelerating <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Braking without lock-up <input type="checkbox"/> Steering left <input type="checkbox"/> Releasing brakes <input type="checkbox"/> Steering right
Where was vehicle at time of collision?	<input checked="" type="checkbox"/> Original travel lane <input type="checkbox"/> Different travel lane <input type="checkbox"/> In intersection <input type="checkbox"/> Off roadway to right <input type="checkbox"/> Off roadway to left <input type="checkbox"/> Other (specify): _____
Can you estimate your travel speed at the time of collision? (in mph)	<input type="checkbox"/> Stopped <input type="checkbox"/> 11-20 <input type="checkbox"/> 31-40 <input type="checkbox"/> 51-60 <input type="checkbox"/> 70+ <input checked="" type="checkbox"/> 1-10 <input type="checkbox"/> 21-30 <input type="checkbox"/> 41-50 <input type="checkbox"/> 61-70 <input type="checkbox"/> Unknown
Describe all the impacts to the vehicle, including what the vehicle contacted) and how this vehicle moved to its stopped position, after the collision?	was only hit once as far as I remember
What race does the driver consider himself?	<input checked="" type="checkbox"/> White <input type="checkbox"/> American Indian, Eskimo or Aleut, Asian or Pacific Islander <input type="checkbox"/> Black <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
Is the driver of Hispanic origin?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown

## National Accident Sampling System-Crashworthiness Data System: Interview Form

## VEHICLE INFORMATION

## ROLLOVER DATA

## DID THIS VEHICLE ROLL OVER DURING THE CRASH?

- ☐ YES - - ASK THE FOLLOWING QUESTIONS  
☒ NO - - SKIP TO "FIRE DATA" BELOW  
☐ UNKNOWN - - SKIP TO "FIRE DATA" BELOW

Describe where the rollover began	<input type="checkbox"/> On roadway <input type="checkbox"/> On shoulder <input type="checkbox"/> On roadside or median <input type="checkbox"/> Unknown
What caused the vehicle to roll over?	<input type="checkbox"/> Other vehicle (specify vehicle number) _____ <input type="checkbox"/> Contact to object (specify): _____ <input type="checkbox"/> Other cause (specify): _____ <input type="checkbox"/> Unknown
Which direction did the vehicle roll?	<input type="checkbox"/> Toward the right (passenger side) <input type="checkbox"/> Toward the left (driver side) <input type="checkbox"/> End-over-end <input type="checkbox"/> Unknown
Estimate the number of quarter turns (each side) or complete turns (4 quarter turns) the vehicle did	_____ Number of quarter turns <input type="checkbox"/> Unknown _____ Number of complete turns
When the vehicle stopped rolling over, which side was in contact with the ground?	<input type="checkbox"/> Left side <input type="checkbox"/> Top <input type="checkbox"/> Right side <input type="checkbox"/> Wheels <input type="checkbox"/> Unknown

## FIRE DATA

## DID THIS VEHICLE EXPERIENCE A FIRE?

- ☐ YES - - ASK THE FOLLOWING QUESTIONS  
☒ NO - - SKIP THIS SECTION  
☐ UNKNOWN - - SKIP THIS SECTION

Describe where the fire started, or where the smoke was first seen	<input type="checkbox"/> Under the hood <input type="checkbox"/> In the trunk/cargo area <input type="checkbox"/> Behind the instrument panel <input type="checkbox"/> Under the vehicle <input type="checkbox"/> In the passenger compartment <input type="checkbox"/> From other involved vehicle <input type="checkbox"/> Unknown
Did the fire start with the electrical system?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify): _____ <input type="checkbox"/> Unknown
Did the fire start with the fuel system?	<input type="checkbox"/> No <input type="checkbox"/> Yes (specify): _____ <input type="checkbox"/> Unknown
ASK IF THE FIRE INVOLVED THE FUEL SYSTEM. Which part of the fuel system may have been involved?	<input checked="" type="checkbox"/> Fuel tank <input type="checkbox"/> Fuel lines <input type="checkbox"/> Engine compartment (specify component if known) <input type="checkbox"/> Unknown

Describe any additional rollover or fire information here:

### ADDITIONAL VEHICLE INFORMATION

<p>IF THIS VEHICLE HAS NOT BEEN INSPECTED ASK THIS QUESTION:</p> <p>What is the year, make and model of your vehicle?</p>	<p>Year: 19 <u>89</u></p> <p>Make: <u>MERCURY</u></p> <p>Model: <u>Sable</u></p>
<p>Was there any damage to the vehicle that is not related to this crash?</p>	<p><input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes - describe:  <input type="checkbox"/> Unknown</p>
<p>Did any of the doors or hatch come open during the crash?</p>	<p><input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes - describe:  <input type="checkbox"/> Unknown</p>
<p>Did any of the windows break during the crash?</p>	<p><input type="checkbox"/> No  <input checked="" type="checkbox"/> Yes - describe: <u>② REAR</u>  <input type="checkbox"/> Unknown</p>
<p>Were any windows open (O) or partially open (P) prior to the crash?</p>	<p><input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes *      * "O" = open    "P" = partially open</p> <p style="text-align: center;"> <input type="checkbox"/> WS      <input type="checkbox"/> LF      <input type="checkbox"/> RF      <input type="checkbox"/> LR      <input type="checkbox"/> RR  <input type="checkbox"/> BL      <input type="checkbox"/> Roof      <input type="checkbox"/> Other </p> <p><input type="checkbox"/> Unknown</p>
<p>Did the glove compartment door come open during the crash?</p>	<p><input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes - describe:  <input type="checkbox"/> Unknown</p>
<p>Was there any cargo in the vehicle at the time of the crash?</p>	<p><input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes - describe:</p> <p style="text-align: center;">Approximate weight - _____ pounds</p> <p><input type="checkbox"/> Unknown</p>
<p>Approximate mileage on the vehicle?</p>	<p><u>60,000</u> miles ?  <input type="checkbox"/> Unknown</p>
<p>If you have not inspected the vehicle, please provide a brief description of the vehicle and its location following the crash.</p>	<p>Current location of vehicle:          Contact person:</p>

Detail any notes, questions to ask interviewee (i.e., rescue personnel damage to vehicle) or directions to vehicle location here:

SPECIAL CRASH INVESTIGATION ADDENDUM: DRIVER INFORMATION	
Do you recall the type of development in the area of the crash?	<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input checked="" type="checkbox"/> Undeveloped <input type="checkbox"/> School <input type="checkbox"/> Other: _____
What were the weather conditions at the time of the crash?	<input type="checkbox"/> Clear (no clouds, no precipitation) <input type="checkbox"/> Cloudy (partially cloudy, no precipitation) <input type="checkbox"/> Overcast (full cloud cover, no precipitation) <input checked="" type="checkbox"/> Precipitating <input type="checkbox"/> Unknown
What was the type of precipitation?	<input type="checkbox"/> No precipitation <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Raining <input type="checkbox"/> Freezing rain <input type="checkbox"/> Sleet <input type="checkbox"/> Snowing <input type="checkbox"/> Hailing
What was the condition of the road surface?	<input type="checkbox"/> Dry <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Snowy, slushy <input type="checkbox"/> Icy <input type="checkbox"/> Other (e.g., sand, dirt, oil on surface, etc.) <input type="checkbox"/> Unknown
How would you describe the amount of traffic at the time of the crash?	<input type="checkbox"/> Heavy <input type="checkbox"/> Moderate <input type="checkbox"/> Light <input checked="" type="checkbox"/> No other traffic present
What is your occupation?	<input type="checkbox"/> Professional <input type="checkbox"/> Technical <input type="checkbox"/> Government official <input type="checkbox"/> Management <input type="checkbox"/> Proprietors <input type="checkbox"/> Sales <input type="checkbox"/> Clerical <input type="checkbox"/> Craftsman and foreman <input type="checkbox"/> Service worker <input type="checkbox"/> Student <input type="checkbox"/> Farmers and farm-managers <input type="checkbox"/> Farm labors and foreman <input type="checkbox"/> Private household worker <input type="checkbox"/> Housewife <input type="checkbox"/> Other: <u>RETIRED</u>
How long have you driven this vehicle?	Years: <u>6</u> Months: _____
How many miles do you think that you have driven it in the last 12-month period?	Miles: _____
How often do you drive this particular roadway?	<input type="checkbox"/> Daily <input type="checkbox"/> Twice weekly <input type="checkbox"/> Once weekly <input type="checkbox"/> Twice monthly <input type="checkbox"/> Once monthly <input checked="" type="checkbox"/> Very infrequently <input type="checkbox"/> First time on road
Where were you coming from just prior to the crash?	<input checked="" type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: _____
Where were you intending to go when the crash occurred?	<input type="checkbox"/> Home <input type="checkbox"/> Work <input type="checkbox"/> School <input type="checkbox"/> Shopping <input checked="" type="checkbox"/> Social/recreational <input type="checkbox"/> Restaurant <input type="checkbox"/> Personal business <input type="checkbox"/> Other: _____

## OCCUPANT DATA QUESTIONS

How many people were in your vehicle at the time of the crash?

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>   </u>
Where was this person sitting in the vehicle?  Front Left (FL)              Second Left (2L) Front Middle (FM)          Second Middle (2M) Front Right (FR)            Second Right (2R)  Third Left (3L)              Other (SPECIFY in block) Third Middle (3M) Third Right (3R)	FRONT LEFT		
What is the Sex, Height, Weight, and Age of each occupant?	<input checked="" type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months <u>   </u> <input type="checkbox"/> F - Unk. if pregnant  HEIGHT: <u>5'4"</u> WEIGHT: <u>175</u> AGE: <u>72</u>	<input checked="" type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months <u>   </u> <input type="checkbox"/> F - Unk. if pregnant  HEIGHT: <u>5'7</u> WEIGHT: <u>140</u> AGE: <u>45</u>	<input type="checkbox"/> M <input type="checkbox"/> F - Not pregnant <input type="checkbox"/> F - Pregnant - # of months <u>   </u> <input type="checkbox"/> F - Unk. if pregnant  HEIGHT: <u>   </u> WEIGHT: <u>   </u> AGE: <u>   </u>
Describe how occupant was seated  A) Kneeling or standing on seat B) Lying on or across seat C) Kneeling, standing or sitting in front of seat D) Sitting sideways, turned to side or back E) Sitting on console F) Lying back in reclined position G) Other (specify) H) Unknown	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input checked="" type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown  Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input checked="" type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown  Indicate all letters that apply and describe if other than above	<input type="checkbox"/> Leaning to left <input type="checkbox"/> Leaning to right <input type="checkbox"/> Sitting upright <input type="checkbox"/> Unknown  Indicate all letters that apply and describe if other than above
Describe feet and hands/arms location just prior to impact (indicate all that apply)  <u>FEET</u> A) On floor or foot controls B) One or both on dash C) One or both on seat D) Other (specify) E) Unknown  <u>HANDS / ARMS</u> F) Both hands on steering wheel G) One on wheel, other hand resting or adjusting a control (specify hand on wheel and control involved) H) Dialing a cellular phone (specify location and type of phone) I) Holding a cellular phone (specify location and type of phone) J) Bracing with one or both hands K) On lap L) One or both out of window (specify) M) Other (specify) N) Unknown	Indicate all letters that apply and further describe as needed  <u>A</u>          <u>F</u>	Indicate all letters that apply and further describe as needed  <u>A Both on Floor</u>          <u>K</u>	Indicate all letters that apply and further describe as needed

Describe any additional information here:

OCCUPANT DATA CONTINUED ON NEXT PAGE

## OCCUPANT DATA QUESTIONS (continued)

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>   </u>
Was your / their back up against the seat back?	<input type="checkbox"/> No (describe) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No (describe) <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat track, if so where was the seat located prior to impact?	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input checked="" type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Seat all the way forward <input type="checkbox"/> Between forward and middle <input type="checkbox"/> At middle position <input type="checkbox"/> Between middle and rear position <input type="checkbox"/> Seat all the way rearward <input type="checkbox"/> Unknown
Does this seat position have an adjustable seat back, if so where was the seat back located prior to impact?	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input checked="" type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely reclined
If this seat position has an adjustable seat back, where was the seat back located after impact?	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Not adjustable <input type="checkbox"/> Did not move (retained original position) <input type="checkbox"/> Completely reclined <input type="checkbox"/> Slightly reclined <input type="checkbox"/> Completely upright <input type="checkbox"/> Slightly forward of upright <input type="checkbox"/> Completely forward <input type="checkbox"/> Unknown

Did this vehicle have a cellular phone in it during the crash?

☒ No☐ Yes - describe type: \_\_\_\_\_  
(e.g., portable, mounted in vehicle, flip phone, etc.)☐ Unknown**(Note to researcher: try to determine any driver distractions without implying fault)**

Was the driver doing any of the following? (check all that apply - and specify)

- ☐ Talking to or listening to another occupant (specify):  
☐ Was there a moving object in vehicle (specify):  
☐ Talking or listening on a cellular phone (specify):  
☐ Dialing a cellular phone (specify):  
☐ Adjusting climate control (specify):  
☐ Adjusting radio, CD or cassette player (specify):  
☐ Using other device or object in vehicle (specify):  
☐ Sleepy / asleep (specify):  
☐ Distracted by outside person, object, or event (specify):  
☐ Eating or drinking (specify):  
☐ Smoking related (specify):  
☐ Other (specify):  
☐ Unknown

Describe any additional information here:

## RESTRAINT INFORMATION

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>   </u>
<b>Describe the seat belt available for the seat position</b>  <b>NOTE: If a belt is not available for a seat position -- describe if removed or not functional.</b>	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input checked="" type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:	<input type="checkbox"/> Unknown <input type="checkbox"/> Lap belt <input type="checkbox"/> Shoulder belt <input type="checkbox"/> Lap & Shoulder <input type="checkbox"/> Not available * * Describe:
	<input type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", were they working properly?  <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", were they working properly?  <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", were they working properly?  <input type="checkbox"/> Yes <input type="checkbox"/> No (describe):
	<input type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both	<input type="checkbox"/> Unknown <input type="checkbox"/> No <input type="checkbox"/> Yes *  * If "Yes", does it cross: <input type="checkbox"/> Chest <input type="checkbox"/> Lap <input type="checkbox"/> Both
<b>Were you (and other occupant(s)) wearing a seat belt during the accident?</b>	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
<b>SKIP THE FOLLOWING IF NO SEAT BELT WAS WORN</b>			
<b>Where was the shoulder belt situated?</b>	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Over the arm <input type="checkbox"/> Under the arm <input type="checkbox"/> Behind back <input type="checkbox"/> Behind seat <input type="checkbox"/> Other (specify):
<b>Describe any breaks, tears, or failures to any of the seat belts:</b>			

## EJECTION, ENTRAPMENT, MOBILITY INFORMATION

	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>   </u>
Was any part of your body thrown outside the vehicle during the crash?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown  * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown  * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	<input type="checkbox"/> No <input type="checkbox"/> Yes * <input type="checkbox"/> Unknown  * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.
Was anyone pinned in the vehicle?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown  Detail any entrapment	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown  Detail any entrapment	<input type="checkbox"/> No <input type="checkbox"/> Yes ___ physically pinned ___ jammed doors ___ fire, etc. <input type="checkbox"/> Unknown  Detail any entrapment
How did you [and other occupant(s)] exit the vehicle?	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input checked="" type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input checked="" type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown	<input type="checkbox"/> Fatal before removed <input type="checkbox"/> Removed while unconscious or disoriented <input type="checkbox"/> Removed due to injuries <input type="checkbox"/> Exited with some assistance <input type="checkbox"/> Exited under own power <input type="checkbox"/> Fully ejected <input type="checkbox"/> Unknown

Further describe any ejection, entrapment, or mobility information here:



## AIR BAG INFORMATION

WAS THIS VEHICLE EVER EQUIPPED WITH AN AIR BAG?

☐ YES (IF "YES" COMPLETE THIS SECTION)☒ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER SIDE FRONTAL	PASSENGER SIDE FRONTAL OCCUPANT # ____	"OTHER" AIR BAG SPECIFY: _____ OCCUPANT # ____
Had this vehicle been in any previous crashes?  <input type="checkbox"/> NO <input type="checkbox"/> YES - continue to right <input type="checkbox"/> UNKNOWN - go to box below	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, with at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed  <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed  <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED	<input type="checkbox"/> Prior crash <u>without</u> deployment <input type="checkbox"/> One prior crash <u>with</u> deployment <input type="checkbox"/> > 1, <u>with</u> at least one deployment <input type="checkbox"/> Previous accident(s) unknown if deployed  <u>IF PRIOR DEPLOYMENT</u> <input type="checkbox"/> CHECK IF <u>NOT</u> REINSTALLED
Type of air bag?	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown	<input type="checkbox"/> Original equipment <input type="checkbox"/> Retrofitted <input type="checkbox"/> Replacement <input type="checkbox"/> Unknown
Had any prior maintenance / service been performed on the air bag system?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Did the air bag inflate during this crash?	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No  If "NO" was the wiring disconnected prior to the crash?  <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No  If "NO" was the wiring disconnected prior to the crash?  <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	<input type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/> No  If "NO" was the wiring disconnected prior to the crash?  <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
Was the person in this position wearing any type of eye-wear? (Eyeglasses, sunglasses, contact lenses)	<input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> Yes - Specify: <i>glasses</i>	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:
Was the air bag in this position contacted by another occupant?	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:	<input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> Yes - Specify:

Describe any additional information here:

## CHILD SAFETY SEAT INFORMATION

WAS THERE A PERSON IN A CHILD SAFETY SEAT IN THIS VEHICLE?

☐ YES (IF "YES" COMPLETE THIS SECTION)☒ NO ☐ UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER	OCCUPANT # ____	OCCUPANT # ____
Manufacturer and model of the safety seat?			
Type of safety seat?		<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Infant <input type="checkbox"/> Toddler <input type="checkbox"/> Convertible <input type="checkbox"/> Booster <input type="checkbox"/> Integral <input type="checkbox"/> Other Specify: _____ <input type="checkbox"/> Unknown
What direction was it facing prior to the crash?		<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown	<input type="checkbox"/> Front <input type="checkbox"/> Rearward <input type="checkbox"/> Unknown
Was a seat belt used to hold the seat in place?		<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
How was the seat belt secured to the child seat?		<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> Looped through designated rear framing studs <input type="checkbox"/> Looped through arm rest slots <input type="checkbox"/> Belt across safety shield <input type="checkbox"/> Looped through rear frame outside the designated framing struts <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown
What was the safety seat equipped with at time of purchase?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> Unknown
Were any of these added after they owned the safety seat?		<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown	<input type="checkbox"/> Harness <input type="checkbox"/> Shield <input type="checkbox"/> Tether <input type="checkbox"/> None <input type="checkbox"/> Unknown

Describe any additional information here:

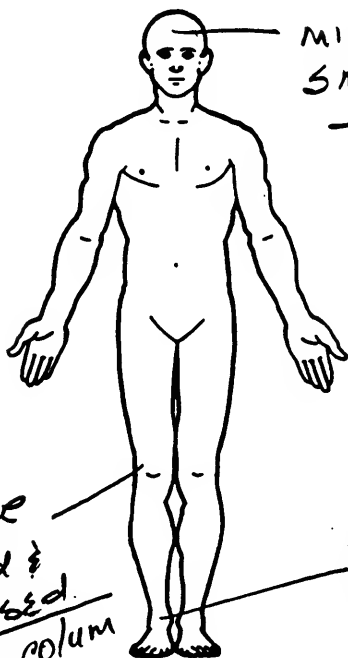
INJURY INFORMATION			
	DRIVER	OCCUPANT # <u>2</u>	OCCUPANT # <u>   </u>
Were you (or any other occupants) injured? • If "YES" go to manikin page and record injuries in detail • If "NO" ask next questions	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Did you (or any other occupants) receive any of the following:  <i>(If any injuries are checked, go to the manikin page and record location, lesion, and source)</i>	<input checked="" type="checkbox"/> Cuts <input checked="" type="checkbox"/> Abrasions <input checked="" type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Cuts <input type="checkbox"/> Abrasions <input type="checkbox"/> Bruises <input type="checkbox"/> Broken bones <input type="checkbox"/> Head, skull, brain <input type="checkbox"/> Internal injury <input type="checkbox"/> Sprains, strains <input type="checkbox"/> Other (specify):
IF INJURIES ARE CHECKED, GO TO THE MANIKIN PAGE			
Did you (or any other occupants) receive any medical treatment?  (check all that apply)	<input checked="" type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown	<input type="checkbox"/> Hospital <input type="checkbox"/> Medical clinic <input type="checkbox"/> Paramedics at scene <input type="checkbox"/> Doctor's office <input type="checkbox"/> Treated by self <input type="checkbox"/> Unknown
Were you (or any other occupants) hospitalized?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown
Were you (or any other occupants) treated and released from the emergency room?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Unknown
Name of medical treatment facility?			
Have you (or any other occupants) received any follow-up treatment?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes - describe: _____ <input type="checkbox"/> Unknown
Have you (or any other occupants) lost any days from work or school (college) due to the crash?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Not working prior to crash <input type="checkbox"/> Yes - number of days <input type="checkbox"/> Unknown
IF REQUIRED:  Will you sign a medical release?	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown	<input type="checkbox"/> No <input type="checkbox"/> Yes* <input type="checkbox"/> Unknown
* If not an in-person interview, make appointment to have release signed	DATE: _____ TIME: _____ PLACE: _____	DATE: _____ TIME: _____ PLACE: _____	DATE: _____ TIME: _____ PLACE: _____

PSU Number 10Case Number—Stratum 9521Vehicle Number 02Occupant Number 01

## INJURY DATA FROM INTERVIEWEE(S)

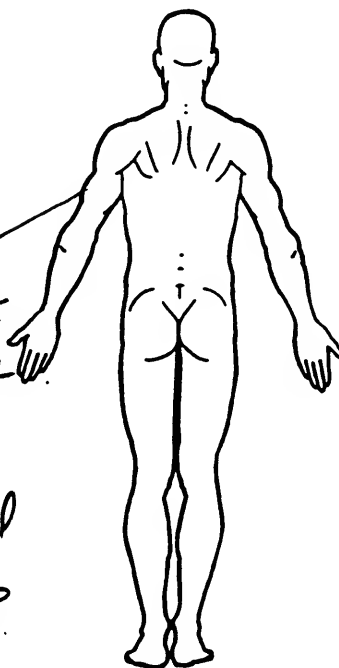
Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): DRIVERinterviewee

## SOFT TISSUE/INTERNAL INJURIES



MID Forehead  
small cut  
UNK  
Flying glass

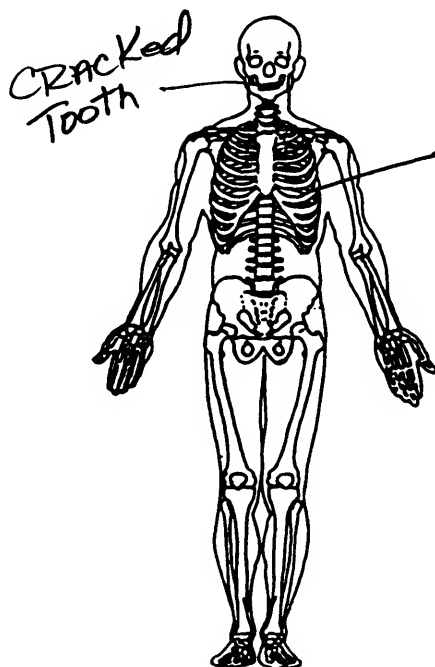
Bicep  
Bruised  
DOOR SIDE  
B-PILLAR



② Knee  
Bruised &  
ABRASED  
steering column

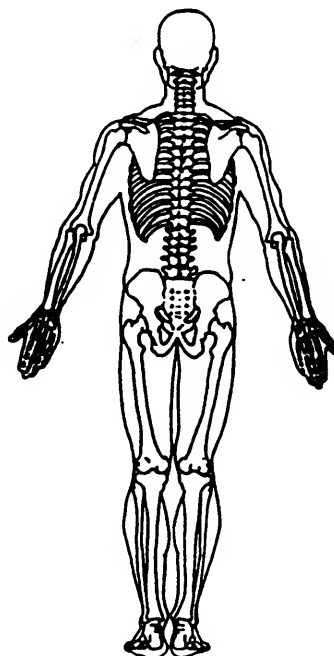
② Ankle  
Bruised  
Badly  
Foot controls  
OR Hump.

## SKELETAL INJURIES



CRACKED  
Tooth

② & ③  
SORE  
Ribs



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 10 Case Number—Stratum 9521 Vehicle Number 02 Occupant Number 01

## INJURY DATA FROM INTERVIEWEE(S)

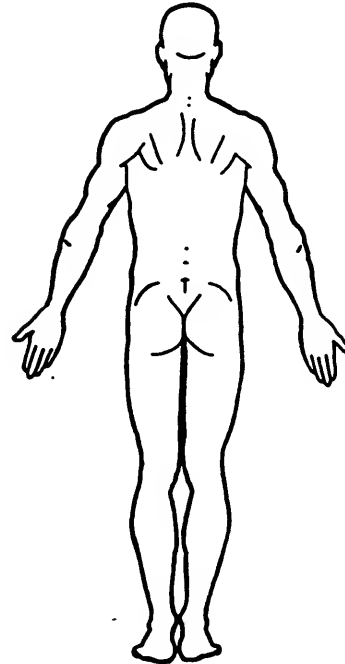
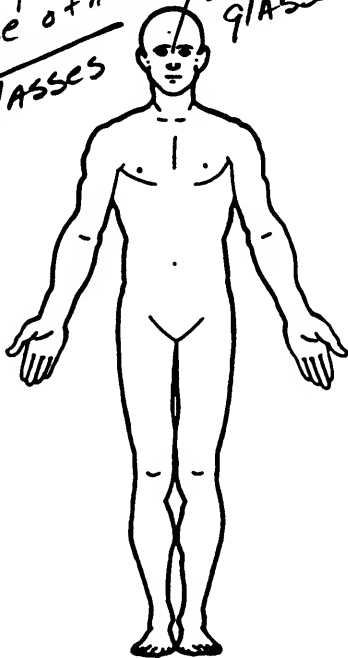
Indicate the Location, Lesion, Detail, and Source of all injuries. Specify interviewee(s): DRIVER Ethis occup.

Bump to  
Bridge of nose  
glasses

Bridge  
nose  
scratch  
glasses

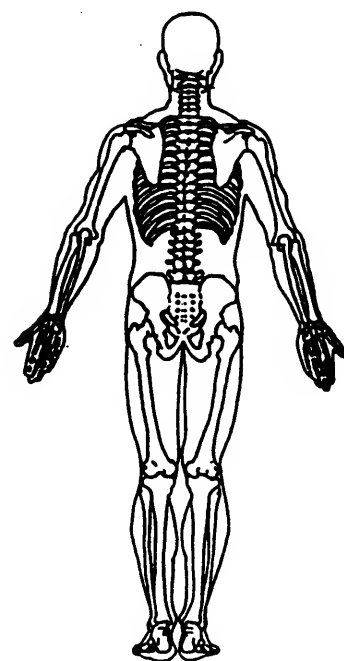
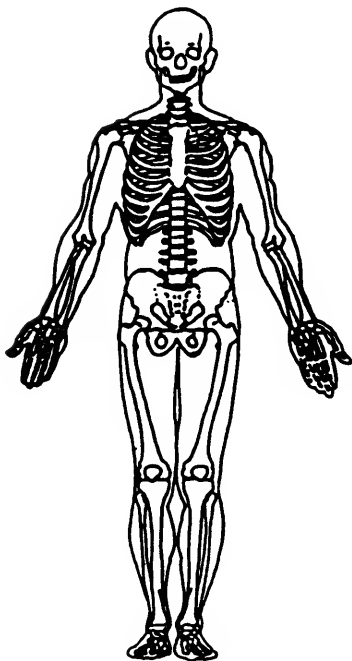
SOFT TISSUE/INTERNAL INJURIES

PASS.  
glasses  
Broke  
(FRAMES)

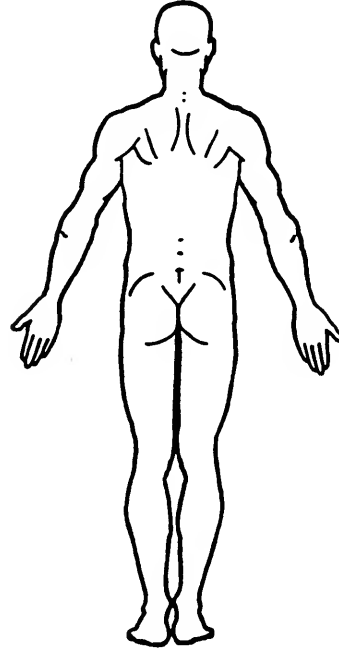
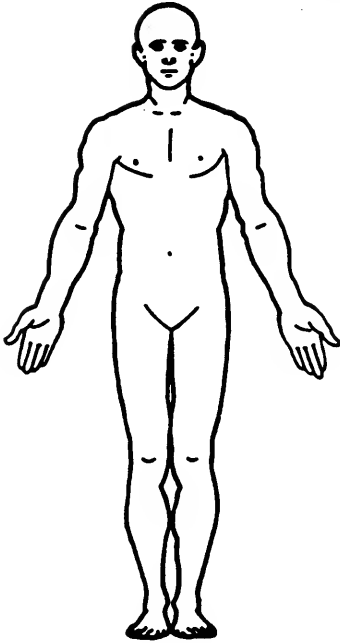
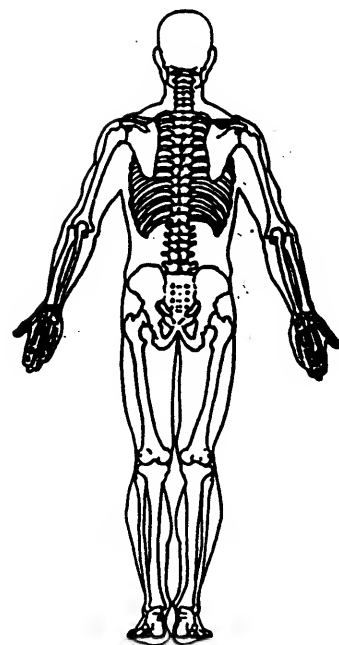
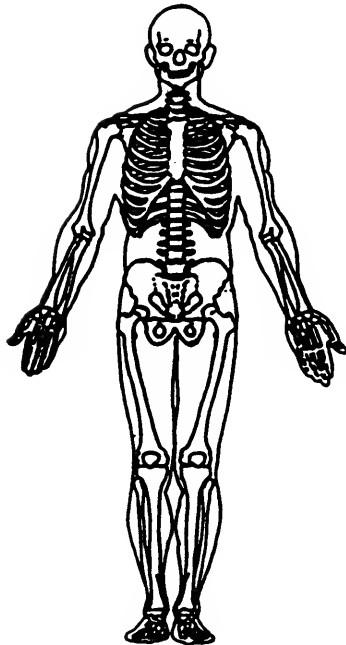


X-RAYS  
Head/chest

## SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

PSU Number 10 Case Number—Stratum \_\_\_\_\_ Vehicle Number \_\_\_\_\_ Occupant Number \_\_\_\_\_**INJURY DATA FROM INTERVIEWEE(S)**Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): \_\_\_\_\_**SOFT TISSUE/INTERNAL INJURIES****SKELETAL INJURIES**

The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

**Appendix I:**

**NASS CDS OCCUPANT ASSESSMENT FORM:**

**CASE VEHICLE DRIVER**



## OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9521

3. Vehicle Number

01

4. Occupant Number

01

### OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

56

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

2

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

175

Code actual height to the nearest  
centimeter.

(999) Unknown

69 inches X 2.54 = 175 centimeters

8. Occupant's Weight

061

Code actual weight to the nearest  
kilogram.

(999) Unknown

135 pounds X .4536 = 61 kilograms

9. Occupant's Role

1

(1) Driver

(2) Passenger

(9) Unknown

### OCCUPANT'S SEATING

10. Occupant's Seat Position

11

*Front Seat*

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

*Second Seat*

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

*Third Seat*

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

*Fourth Seat*

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

0

(0) Normal posture

*Abnormal posture*

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another  
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front  
of seat

(8) Other abnormal posture (specify):

(9) Unknown



**EJECTION/ENTRAPMENT****12. Ejection**

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

0**13. Ejection Area**

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

0**14. Ejection Medium**

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

0**15. Medium Status (Immediately Prior To Impact)**

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

0**16. Entrapment**

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

0**17. Occupant Mobility**

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

4

## BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use 04

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident 1

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 3

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

*Adjustable shoulder Belt Upper Anchorage*

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of automatic belt system (specify):

(9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

(6) Broken retractor

(7) Combination of above (specify):

(8) Other automatic belt failure (specify):

(9) Unknown

## POLICE REPORTED RESTRAINT USE

## 28. Police Reported Belt Use

- (0) None used  
 (1) Police did not indicate belt use  
 (2) Shoulder belt  
 (3) Lap belt  
 (4) Lap and shoulder belt  
 (5) Belt used, type not specified  
 (6) Child safety seat  
 (7) Automatic belt  
 (8) Other type belt, (specify):

(9) Police indicated "unknown"

## 29. Police Reported Air Bag Availability/Function

- (0) No air bag available  
 (1) Police did not indicate air bag availability/function  
 (2) Deployed  
 (3) Not deployed  
 (4) Unknown if deployed  
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [ ] Not equipped/not available/destroyed or rendered inoperative  
 [X] Vehicle inspection  
 [ ] Official injury data  
 [ ] Driver/occupant interview  
 [ ] Other (specify):

[ ] Unknown if belt used

## AIR BAG SYSTEM FUNCTION

## 30. Frontal Air Bag System Availability/Function (This Occupant Position)

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify):

- (3) Air bag not reinstalled  
 (9) Unknown

## 31. Frontal Air Bag System Deployment (This Occupant Position)

- (0) Not equipped/not available  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

## 32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position)

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify):

- (3) Air bag not reinstalled  
 (9) Unknown

*Specify type of "other" air bag present:*

## 33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)

- (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

## 34. Are There Indications of Air Bag System Failure? (This Occupant Position)

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):

(9) Unknown

## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

- (0) Not equipped/not available  
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)  
(3) One previous accident with deployment  
(4) More than one previous accident with at least one deployment  
(8) Previous accidents, unknown deployment status  
(9) Unknown

36. Type of Air Bag 1

- (0) Not equipped/not available  
(1) Original manufacturer installed system  
(2) Retrofitted air bag  
(3) Replacement air bag  
(8) Unknown type of air bag  
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

- (0) Not equipped/not available  
(1) No prior maintenance  
(2) Yes, prior maintenance (specify):  
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

- (00) Not equipped/not available  
1st Code the accident event sequence number that initiated the air bag deployment  
(96) Deployed, unknown event  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available  
(1) Highest delta V  
(2) Second highest delta V  
(3) Other non-coded delta V (specify):  
(6) Deployed, unknown event  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

40. Longitudinal Component of +Delta V For Air Bag - 996

Deployment Impact

- (\_000) Not equipped/not available  
Code the value of the delta V for the impact that initiated the air bag deployment  
(\_996) Deployment, unknown longitudinal Delta V  
(\_997) Not deployed  
(\_998) Unknown if deployed  
(\_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

- (0) Not equipped/not available  
(1) No  
(2) Yes  
(3) Deployed, unknown if flap(s) opened at designated tear points  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
(3) Deployed, unknown if air bag module cover flap(s) damaged  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

43. Was There Damage To The Air Bag? 01

- (00) Not equipped/not available  
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured  
(03) Cut  
(04) Torn  
(05) Holed  
(06) Burned  
(07) Abraded  
(88) Other damage (specify):

- (95) Damaged, details unknown  
(96) Deployed, unknown if damaged  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION** *continued***HEAD RESTRAINT AND SEAT EVALUATION**44. Source of Air Bag Damage 01

- (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):

(03) Object carried by occupant, (specify):

(04) Adaptive/assistive controls, (specify):

(05) Fire in vehicle

(06) Thermal burns

(07) Rescue or emergency efforts

(88) Other damage source (specify):

(95) Damaged, unknown source

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

45. Was The Air Bag Tethered? 2

(0) Not equipped/not available

(1) No

(2) Yes (specify number of tether straps): 2

(3) Deployed, unknown if tethered

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

46. Did The Air Bag Have Vent Ports? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify number of vent ports):

(3) Deployed, unknown if vent ports present

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify):

(3) Deployed, unknown if other occupant contact to air bag

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

48. Was This Occupant Wearing Eye-wear? 1

(0) Not equipped/not available

(1) No

(2) Eyeglasses/sunglasses

(3) Contact lenses

(4) Deployed, unknown if eyewear worn

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

49. Head Restraint Type/Damage by Occupant at This Occupant Position 1

(0) No head restraints

(1) Integral—no damage

(2) Integral—damaged during accident

(3) Adjustable—no damage

(4) Adjustable—damaged during accident

(5) Add-on—no damage

(6) Add-on—damaged during accident

(8) Other (specify):

(9) Unknown

50. Seat Type (this Occupant Position) 02

(00) Occupant not seated or no seat

(01) Bucket

(02) Bucket with folding back

(03) Bench

(04) Bench with separate back cushions

(05) Bench with folding back(s)

(06) Split bench with separate back cushions

(07) Split bench with folding back(s)

(08) Pedestal (i.e., column supported)

(09) Box mounted seat (i.e., van type)

(10) Other seat type (specify):

(99) Unknown

51. Seat Orientation (this Occupant Position) 1

(0) Occupant not seated or no seat

(1) Forward facing seat

(2) Rear facing seat

(3) Side facing seat (inward)

(4) Side facing seat (outward)

(8) Other (specify):

(9) Unknown

## 52. Seat Track Adjusted Position Prior To Impact

(0) Occupant not seated or no seat

(1) Non-adjustable seat track

**Adjustable Seat Track**

(2) Seat at forward most track position

(3) Seat between forward most and middle track positions

(4) Seat at middle track position

(5) Seat between middle and rear most track positions

(6) Seat at rear most track position

(9) Unknown

**HEAD RESTRAINT AND SEAT EVALUATION** *continued***53. Seat Back Incline Prior and Post Impact** 14

- (00) Occupant not seated or no seat  
 (01) Not adjustable

*Upright prior to impact*

- (11) Moved to completely rearward position  
 (12) Moved to rearward midrange position  
 (13) Moved to slightly rearward position  
 (14) Retained pre-impact position  
 (15) Moved to slightly forward position  
 (16) Moved to forward midrange position  
 (17) Moved to completely forward position

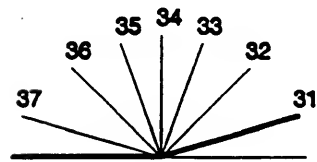
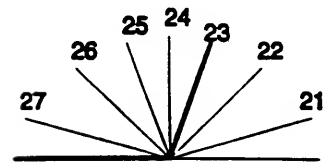
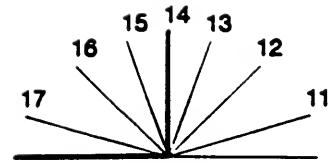
*Slightly reclined prior to impact*

- (21) Moved to completely rearward position  
 (22) Moved to rearward midrange position  
 (23) Retained pre-impact position  
 (24) Moved to upright position  
 (25) Moved to slightly forward position  
 (26) Moved to forward midrange position  
 (27) Moved to completely forward position

*Completely reclined prior to impact*

- (31) Retained pre-impact position  
 (32) Moved to rearward midrange position  
 (33) Moved to slightly rearward position  
 (34) Moved to upright position  
 (35) Moved to slightly forward position  
 (36) Moved to forward midrange position  
 (37) Moved to completely forward position

(99) Unknown

**54. Seat Performance (this Occupant Position)** 1

- (0) Occupant not seated or no seat  
 (1) No seat performance failure(s)  
 (2) Seat adjusters failed  
 (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_  
 (4) Seat track/anchors failed  
 (5) Deformed by impact of occupant  
 (6) Deformed by passenger compartment intrusion, (specify): \_\_\_\_\_  
 (7) Combination of above (specify): \_\_\_\_\_  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 0 0 0  
(000) No child safety seat  
Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing  
(950) Built-in child safety seat  
(997) Other make/model (specify):  
\_\_\_\_\_  
(998) Unknown make/model  
(999) Unknown if child safety seat used

56. Type of Child Safety Seat 0  
(0) No child safety seat  
(1) Infant seat  
(2) Toddler seat  
(3) Convertible seat  
(4) Booster seat - with shield  
(5) Booster seat - without shield  
(7) Other type child safety seat (specify):  
\_\_\_\_\_  
(8) Unknown child safety seat type  
(9) Unknown if child safety seat used

57. Child Safety Seat Orientation 0 0  
(00) No child safety seat  
  
*Designed for Rear Facing for This Age/Weight*  
(01) Rear facing  
(02) Forward facing  
(08) Other orientation (specify):  
\_\_\_\_\_  
(09) Unknown orientation  
  
*Designed For Forward Facing for This Age/Weight*  
(11) Rear facing  
(12) Forward facing  
(18) Other orientation (specify):  
\_\_\_\_\_  
(19) Unknown orientation  
  
*Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*  
(21) Rear facing  
(22) Forward facing  
(28) Other orientation (specify):  
\_\_\_\_\_  
(29) Unknown orientation  
(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 0 0  
  
59. Child Safety Seat Shield Usage 0 0  
  
60. Child Safety Seat Tether Usage 0 0

Note: Options below applicable to  
Variables OA58-OA60.  
(00) No child safety seat

*Not Designed With Harness/Shield/Tether*

(01) After market harness/shield/tether  
added, not used  
(02) After market harness/shield/tether used  
(03) Child safety seat used, but no after market  
harness/shield/tether added  
(09) Unknown if harness/shield/tether  
added or used

*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used  
(12) Harness/shield/tether used  
(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used  
(22) Harness/shield/tether used  
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES****61. Injury Severity (Police Rating)**1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

**62. Treatment - Mortality**4

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):
- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

**63. Type Of Medical Facility (for Initial Treatment)**2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):
- (9) Unknown

**64. Hospital Stay**00

- (00) Not Hospitalized
- Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

**65. Working Days Lost**00

- Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP WORK HERE****VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**



**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES****TRAUMA DATA**

66. Time to Death 00  
 \_\_\_\_\_ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)  
 (00) Not fatal  
 (96) Fatal - ruled disease  
 (99) Unknown

67. 1st Medically Reported Cause of Death 00

68. 2nd Medically Reported Cause of Death 00

69. 3rd Medically Reported Cause of Death 00  
 \_\_\_\_\_ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death  
 (00) Not fatal or no additional causes  
 (96) Mode of death given but specific injuries are not linked to cause of death. (specify):  
 \_\_\_\_\_

(97) Other result (includes fatal ruled disease) (specify):  
 \_\_\_\_\_

(99) Unknown

70. Number of Recorded Injuries for This Occupant 02  
 \_\_\_\_\_ Code the actual number of injuries recorded for this occupant.  
 (00) No recorded injuries  
 (97) Injured, details unknown  
 (99) Unknown if injured

71. Glasgow Coma Scale (GCS) Score 02  
 (at Medical Facility)  
 (00) Not injured  
 (01) Injured - not treated at medical facility  
 (02) No GCS Score at medical facility  
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
 (97) Injured, details unknown  
 (99) Unknown if injured

72. Was the Occupant Given Blood? 1  
 (1) No - blood not given  
 (2) Yes - blood given  
 (specify units): \_\_\_\_\_  
 (9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO<sub>3</sub> 01  
 (00) Not injured  
 (01) Injured, ABGs not measured or reported  
 (02-50) Code the actual value of the HCO<sub>3</sub>  
 (96) ABGs reported, HCO<sub>3</sub> unknown  
 (97) Injured, details unknown  
 (99) Unknown if injured

**BELT USE DETERMINATION**

74. Primary Source of Belt Use Determination 1  
 (0) Not equipped/not available/destroyed or rendered inoperative  
 (1) Vehicle inspection  
 (2) Official injury data  
 (3) Driver/occupant interview  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown if belt used

**Appendix J:**

**NASS CDS OCCUPANT INJURY FORM:**

**CASE VEHICLE DRIVER**



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## OCCUPANT INJURY FORM

Form Approved  
O.M.B. No. 2127-0021  
NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9521

4. Occupant Number

01

### INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	Body Region	Type of Anatomic Structure	A.I.S. - 90			Injury Source	Injury Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number		
			Specific Anatomic Structure	Level of Injury	A.I.S. Severity						
Cervical strain 1st	5. <u>7</u>	6. <u>6</u>	7. <u>4</u>	8. <u>02</u>	9. <u>78</u>	10. <u>1</u>	11. <u>6</u>	12. <u>170</u>	13. <u>2</u>	14. <u>2</u>	15. <u>00</u>
Thoracic strain 2nd	16. <u>7</u>	17. <u>6</u>	18. <u>4</u>	19. <u>04</u>	20. <u>78</u>	21. <u>1</u>	22. <u>7</u>	23. <u>170</u>	24. <u>3</u>	25. <u>2</u>	26. <u>00</u>
3rd	27. <u>  </u>	28. <u>  </u>	29. <u>  </u>	30. <u>  </u>	31. <u>  </u>	32. <u>  </u>	33. <u>  </u>	34. <u>  </u>	35. <u>  </u>	36. <u>  </u>	37. <u>  </u>
4th	38. <u>  </u>	39. <u>  </u>	40. <u>  </u>	41. <u>  </u>	42. <u>  </u>	43. <u>  </u>	44. <u>  </u>	45. <u>  </u>	46. <u>  </u>	47. <u>  </u>	48. <u>  </u>
5th	49. <u>  </u>	50. <u>  </u>	51. <u>  </u>	52. <u>  </u>	53. <u>  </u>	54. <u>  </u>	55. <u>  </u>	56. <u>  </u>	57. <u>  </u>	58. <u>  </u>	59. <u>  </u>
6th	60. <u>  </u>	61. <u>  </u>	62. <u>  </u>	63. <u>  </u>	64. <u>  </u>	65. <u>  </u>	66. <u>  </u>	67. <u>  </u>	68. <u>  </u>	69. <u>  </u>	70. <u>  </u>
7th	71. <u>  </u>	72. <u>  </u>	73. <u>  </u>	74. <u>  </u>	75. <u>  </u>	76. <u>  </u>	77. <u>  </u>	78. <u>  </u>	79. <u>  </u>	80. <u>  </u>	81. <u>  </u>
8th	82. <u>  </u>	83. <u>  </u>	84. <u>  </u>	85. <u>  </u>	86. <u>  </u>	87. <u>  </u>	88. <u>  </u>	89. <u>  </u>	90. <u>  </u>	91. <u>  </u>	92. <u>  </u>
9th	93. <u>  </u>	94. <u>  </u>	95. <u>  </u>	96. <u>  </u>	97. <u>  </u>	98. <u>  </u>	99. <u>  </u>	100. <u>  </u>	101. <u>  </u>	102. <u>  </u>	103. <u>  </u>
10th	104. <u>  </u>	105. <u>  </u>	106. <u>  </u>	107. <u>  </u>	108. <u>  </u>	109. <u>  </u>	110. <u>  </u>	111. <u>  </u>	112. <u>  </u>	113. <u>  </u>	114. <u>  </u>

## OCCUPANT INJURY DATA

Source of Injury Data	A.I.S. - 90					Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity					
11th	—	—	—	—	—	—	—	—	—	—
12th	—	—	—	—	—	—	—	—	—	—
13th	—	—	—	—	—	—	—	—	—	—
14th	—	—	—	—	—	—	—	—	—	—
15th	—	—	—	—	—	—	—	—	—	—
16th	—	—	—	—	—	—	—	—	—	—
17th	—	—	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—
24th	—	—	—	—	—	—	—	—	—	—
25th	—	—	—	—	—	—	—	—	—	—

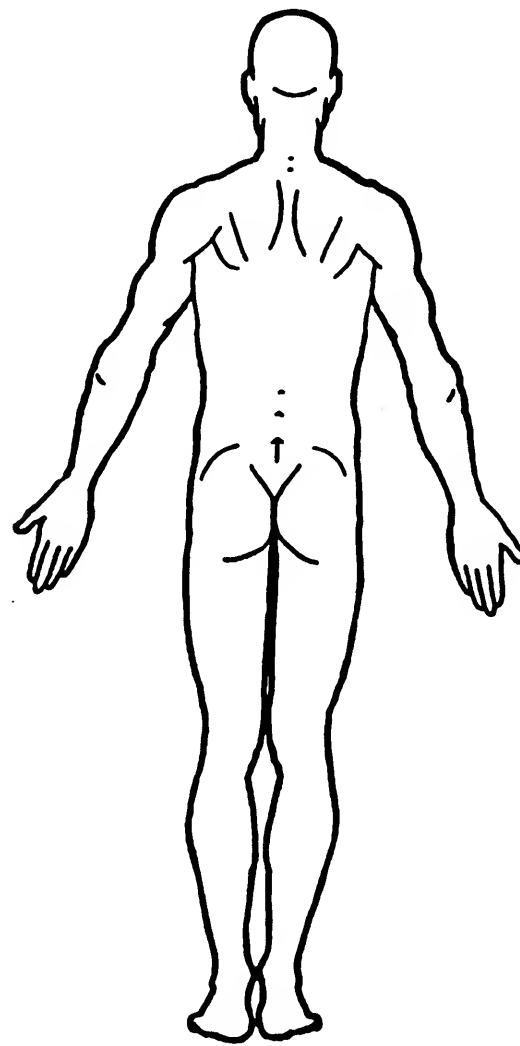
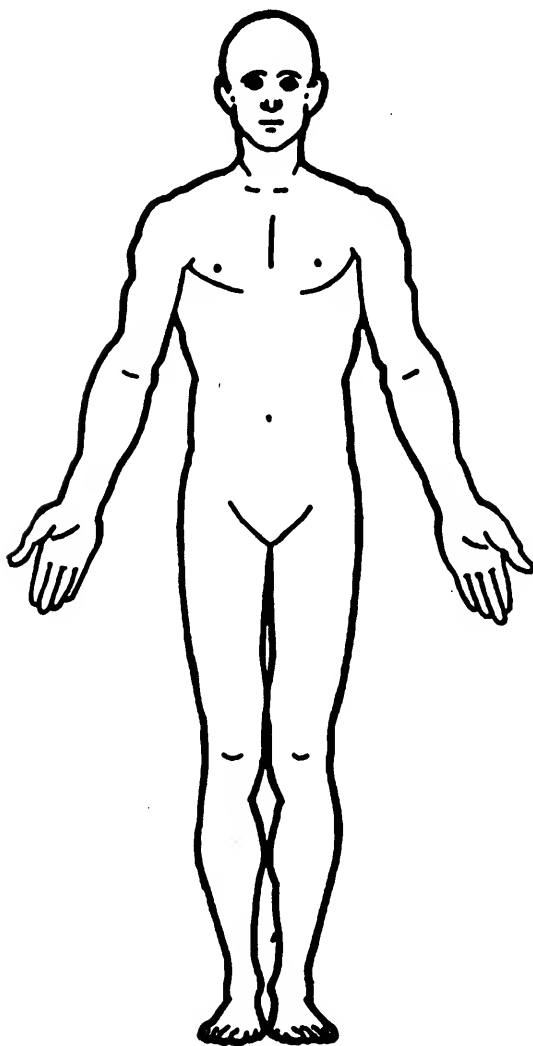
**OCCUPANT INJURY CLASSIFICATION**

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>	To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(4) Central
(5) Abdomen		The exceptions to this rule apply to:	(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity		The exceptions to this rule apply to:	(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified			(9) Unknown
			(0) Whole region
Type of Anatomic Structure	Whole Area	Abbreviated Injury Scale	
(1) Whole Area	(02) Skin - Abrasion	(1) Minor Injury	
(2) Vessels	(04) Skin - Contusion	(2) Moderate Injury	
(3) Nerves	(06) Skin - Laceration	(3) Serious Injury	
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion	(4) Severe Injury	
(5) Skeletal (includes joints)	(10) Amputation	(5) Critical Injury	
(6) Head - LOC	(20) Burn	(6) Maximum (untreatable)	
(9) Skin	(30) Crush	(7) Injured, unknown severity	
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

SOURCE OF INJURY DATA	INJURY SOURCE CONFIDENCE LEVEL	DIRECT/INDIRECT INJURY
<u>OFFICIAL RECORDS</u> (1) Autopsy records with or without hospital/medical records (2) Hospital/medical records other than emergency room (e.g., discharge summary) (3) Emergency room records only (including associated X-rays or other lab reports) (4) Private physician, walk-in or emergency clinic  <u>UNOFFICIAL RECORDS</u> (5) Lay coroner report (6) E.M.S. personnel (7) Interviewee (8) Other source (specify): _____ (9) Police	(1) Certain (2) Probable (3) Possible (9) Unknown	(1) Direct contact injury (2) Indirect contact injury (3) Noncontact injury (7) Injured, unknown source

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



# OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

\_\_\_ No

\_\_\_ Yes

Blood Alcohol  
Level (mg/dl)

BAL = \_\_\_

Glasgow Coma  
Scale Score

GCSS = \_\_\_

Units of Blood  
Given

Units = \_\_\_

Arterial Blood  
Gases

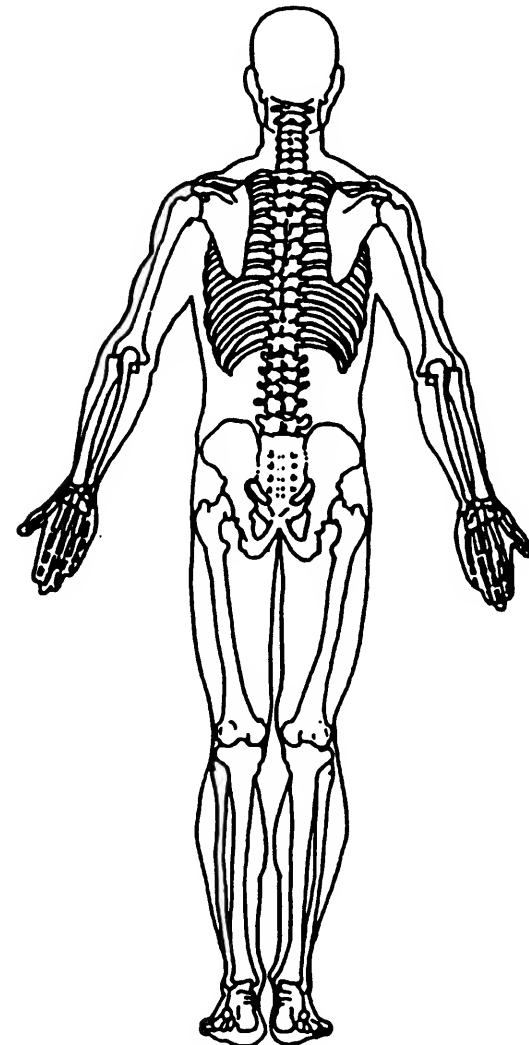
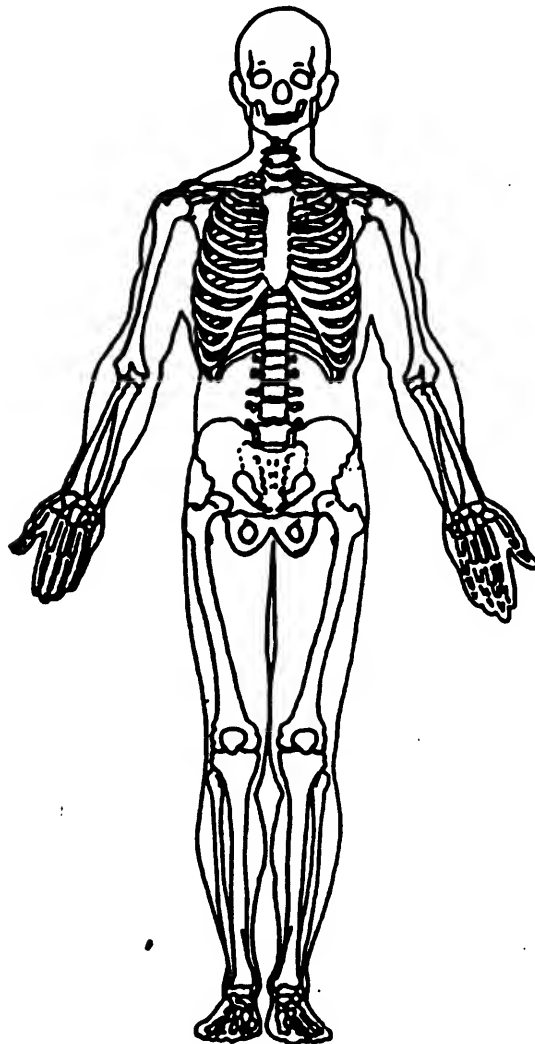
pH = \_\_\_

PO<sub>2</sub> = \_\_\_

PCO<sub>2</sub> = \_\_\_

HCO<sub>3</sub> = \_\_\_

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



101

## INJURY SOURCES

### FRONT

- (001) Windshield
- (002) Mirror
- (003) Survivor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify):
- (019) Other front object (specify):

### LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify):
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify):

### RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify):
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify):

### INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify):
- (155) Head restraint system
- (160) Other occupants (specify):
- (161) Interior loose objects
- (162) Child safety seat (specify):
- (163) Other interior object (specify):

### AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify)
- (195) Other air bag compartment cover (specify)

### ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top
- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

### REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify):

### ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify):
- (409) Additional or relocated switches, (specify):
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify):

### EXTERIOR OF OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tire (specify):
- (454) Unknown exterior objects

### EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify):
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify):
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify):
- (514) Unknown exterior of other motor vehicle

### OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify):
- (599) Unknown vehicle or object

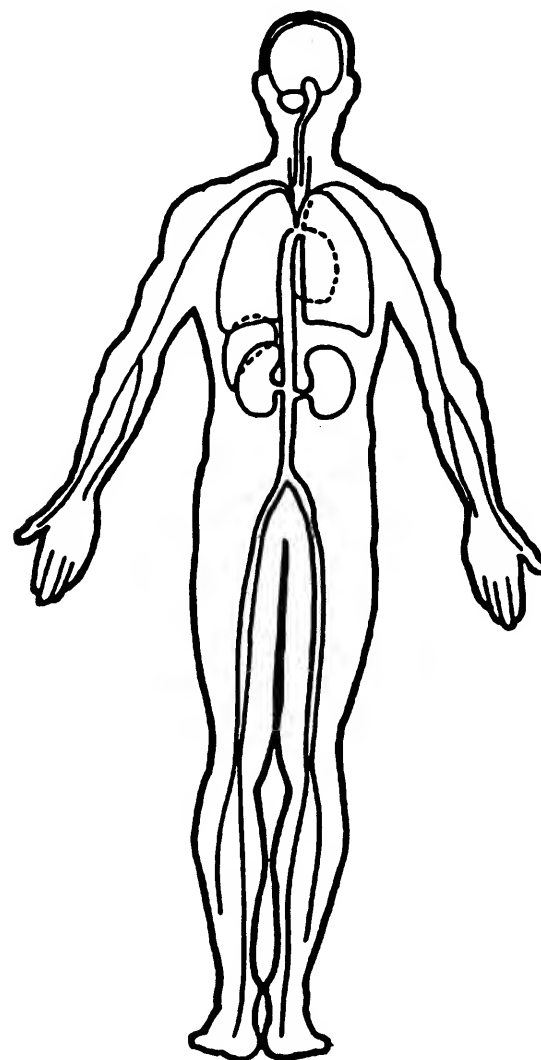
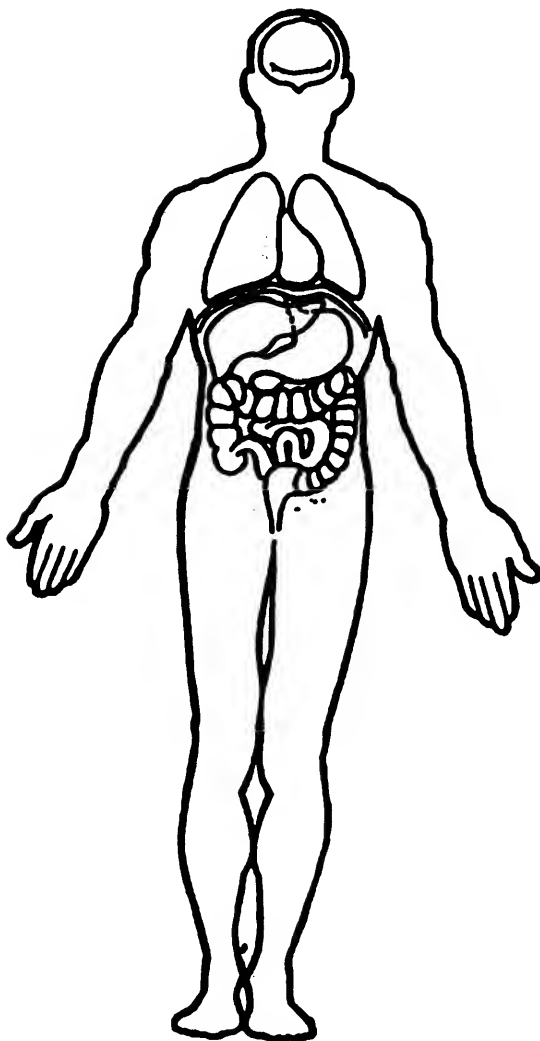
### NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify):
- (604) Air bag exhaust gases
- (697) Injured, unknown source



## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## CAUSE OF DEATH

## ICD-9-CM

### OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input type="checkbox"/> Unspecified		

### MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
FN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)

**Appendix K:**

**NASS CDS OCCUPANT ASSESSMENT FORM:**

**CASE VEHICLE RIGHT FRONT PASSENGER**



## OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number

10

2. Case Number - Stratum

9521

3. Vehicle Number

01

4. Occupant Number

02

### OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

00

Code actual age at time of accident.

(00) Less than one year old (specify by month):

2 months

(97) 97 years and older (7 weeks)

(99) Unknown

6. Occupant's Sex

1

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

056

Code actual height to the nearest  
centimeter.

(999) Unknown

22 inches X 2.54 = 55.9 centimeters

8. Occupant's Weight \*

004

Code actual weight to the nearest  
kilogram.

(999) Unknown

4.12 kg in 2nd ER

10 pounds X .4536 = 4.54 kilograms

9. Occupant's Role

2

(1) Driver

(2) Passenger

(9) Unknown

### OCCUPANT'S SEATING

10. Occupant's Seat Position

13

Front Seat

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

Second Seat

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

Third Seat

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

Fourth Seat

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

0

(0) Normal posture

Abnormal posture

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another  
occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front  
of seat

(8) Other abnormal posture (specify):

(9) Unknown

\* 5 kg used in weight calculations;  
4 kg value obtained afterwards!

**EJECTION/ENTRAPMENT****12. Ejection**0

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

**13. Ejection Area**0

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

**14. Ejection Medium**0

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

**15. Medium Status (Immediately Prior To Impact)**0

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

**16. Entrapment**0

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

**17. Occupant Mobility**2

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

## BELT SYSTEM FUNCTION

<p>18. Manual (Active) Belt System Availability <u>4</u></p> <p>(0) None available</p> <p>(1) Belt removed/destroyed</p> <p>(2) Shoulder belt</p> <p>(3) Lap belt</p> <p>(4) Lap and shoulder belt</p> <p>(5) Belt available—type unknown</p> <p><i>Integral Belt Partially Destroyed</i></p> <p>(6) Shoulder belt (lap belt destroyed/removed)</p> <p>(7) Lap belt (shoulder belt destroyed/removed)</p> <p>(8) Other belt (specify): _____</p> <p>(9) Unknown</p>	<p>22. Shoulder Belt Upper Anchorage Adjustment <u>4</u></p> <p>(0) No shoulder belt</p> <p>(1) No upper anchorage adjustment for shoulder belt</p> <p><i>Adjustable shoulder Belt Upper Anchorage</i></p> <p>(2) In full up position</p> <p>(3) In mid position</p> <p>(4) In full down position</p> <p>(5) Position unknown</p> <p>(9) Unknown if position has adjustable upper anchorage adjustment</p>
<p>19. Manual (Active) Belt System Use <u>14</u></p> <p>(00) None used, not available, or belt removed/destroyed</p> <p>(01) Inoperative (specify): _____</p> <p>(02) Shoulder belt</p> <p>(03) Lap belt</p> <p>(04) Lap and shoulder belt</p> <p>(05) Belt used—type unknown</p> <p>(08) Other belt used (specify): _____</p> <p>(12) Shoulder belt used with child safety seat</p> <p>(13) Lap belt used with child safety seat</p> <p>(14) Lap and shoulder belt used with child safety seat</p> <p>(15) Belt used with child safety seat—type unknown</p> <p>(18) Other belt used with child safety seat (specify): _____</p> <p>(99) Unknown if belt used</p>	<p>23. Automatic (Passive) Belt System Availability/Function <u>0</u></p> <p>(0) Not equipped/not available</p> <p>(1) 2 point automatic belts</p> <p>(2) 3 point automatic belts</p> <p>(3) Automatic belts - type unknown</p> <p><i>Non-functional</i></p> <p>(4) Automatic belts destroyed or rendered inoperative</p> <p>(9) Unknown</p>
<p>20. Proper Use of Manual (Active) Belts <u>2</u></p> <p>(0) None used or not available</p> <p>(1) Belt used properly</p> <p>(2) Belt used properly with child safety seat</p> <p><i>Belt Used Improperly</i></p> <p>(3) Shoulder belt worn under arm</p> <p>(4) Shoulder belt worn behind back or seat</p> <p>(5) Belt worn around more than one person</p> <p>(6) Lap belt worn on abdomen</p> <p>(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of manual belt system (specify): _____</p> <p>(9) Unknown</p>	<p>24. Automatic (Passive) Belt System Use <u>0</u></p> <p>(0) Not equipped/not available/destroyed or rendered inoperative</p> <p>(1) Automatic belt in use</p> <p>(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____</p> <p>(3) Automatic belt use unknown</p> <p>(9) Unknown</p> <p>25. Automatic (Passive) Belt System Type <u>0</u></p> <p>(0) Not equipped/not available</p> <p>(1) Non-motorized system</p> <p>(2) Motorized system</p> <p>(9) Unknown</p>
<p>21. Manual (Active) Belt Failure Modes During Accident <u>1</u></p> <p>(0) No manual belt used or not available</p> <p>(1) No manual belt failure(s)</p> <p>(2) Torn webbing (stretched webbing not included)</p> <p>(3) Broken buckle or latchplate</p> <p>(4) Upper anchorage separated</p> <p>(5) Other anchorage separated (specify): _____</p> <p>(6) Broken retractor</p> <p>(7) Combination of above (specify): _____</p> <p>(8) Other manual belt failure (specify): _____</p> <p>(9) Unknown</p>	<p>26. Proper Use of Automatic (Passive) Belt System <u>0</u></p> <p>(0) Not equipped/not available/not used</p> <p>(1) Automatic belt used properly</p> <p>(2) Automatic belt used properly with child safety seat</p> <p><i>Automatic Belt Used Improperly</i></p> <p>(3) Automatic shoulder belt worn under arm</p> <p>(4) Automatic shoulder belt worn behind back</p> <p>(5) Automatic belt worn around more than one person</p> <p>(6) Lap portion of automatic belt worn on abdomen</p> <p>(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of automatic belt system (specify): _____</p> <p>(9) Unknown</p> <p>27. Automatic (Passive) Belt Failure Modes During Accident <u>0</u></p> <p>(0) Not equipped/not available/not in use</p> <p>(1) No automatic belt failure(s)</p> <p>(2) Torn webbing (stretched webbing not included)</p> <p>(3) Broken buckle or latchplate</p> <p>(4) Upper anchorage separated</p> <p>(5) Other anchorage separated (specify): _____</p> <p>(6) Broken retractor</p> <p>(7) Combination of above (specify): _____</p> <p>(8) Other automatic belt failure (specify): _____</p> <p>(9) Unknown</p>

## POLICE REPORTED RESTRAINT USE

28. Police Reported Belt Use 6

- (0) None used  
 (1) Police did not indicate belt use  
 (2) Shoulder belt  
 (3) Lap belt  
 (4) Lap and shoulder belt  
 (5) Belt used, type not specified  
 (6) Child safety seat  
 (7) Automatic belt  
 (8) Other type belt, (specify):  
 (9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 2

- (0) No air bag available  
 (1) Police did not indicate air bag availability/function  
 (2) Deployed  
 (3) Not deployed  
 (4) Unknown if deployed  
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- ☐ Not equipped/not available/destroyed or rendered inoperative  
☒ Vehicle inspection  
☐ Official injury data  
☐ Driver/occupant interview  
☐ Other (specify):  
☐ Unknown if belt used

## AIR BAG SYSTEM FUNCTION

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):  
 (3) Air bag not reinstalled  
 (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1

- (0) Not equipped/not available  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):  
 (3) Air bag not reinstalled  
 (9) Unknown

*Specify type of "other" air bag present:*

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 1

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):  
 (9) Unknown

## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

- (0) Not equipped/not available  
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)  
(3) One previous accident with deployment  
(4) More than one previous accident with at least one deployment  
(8) Previous accidents, unknown deployment status  
(9) Unknown

36. Type of Air Bag 1

- (0) Not equipped/not available  
(1) Original manufacturer installed system  
(2) Retrofitted air bag  
(3) Replacement air bag  
(8) Unknown type of air bag  
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

- (0) Not equipped/not available  
(1) No prior maintenance  
(2) Yes, prior maintenance (specify):  
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

- (00) Not equipped/not available  
1st Code the accident event sequence number that initiated the air bag deployment  
(96) Deployed, unknown event  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available  
(1) Highest delta V  
(2) Second highest delta V  
(3) Other non-coded delta V (specify):  
(6) Deployed, unknown event  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag + 996

Deployment Impact

(\_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(\_996) Deployment, unknown longitudinal Delta V

(\_997) Not deployed

(\_998) Unknown if deployed

(\_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

(0) Not equipped/not available

(1) No

(2) Yes

(3) Deployed, unknown if flap(s) opened at designated tear points

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify):

(3) Deployed, unknown if air bag module cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

43. Was There Damage To The Air Bag? 01

(00) Not equipped/not available

(01) Not damaged

Yes - Air Bag Damage

(02) Ruptured

(03) Cut

(04) Torn

(05) Holed

(06) Burned

(07) Abraded

(88) Other damage (specify):

(95) Damaged, details unknown

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown



**FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION** *continued***HEAD RESTRAINT AND SEAT EVALUATION**44. Source of Air Bag Damage 01

- (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):  
 \_\_\_\_\_  
 (03) Object carried by occupant, (specify):  
 \_\_\_\_\_  
 (04) Adaptive/assistive controls, (specify):  
 \_\_\_\_\_  
 (05) Fire in vehicle  
 (06) Thermal burns  
 (07) Rescue or emergency efforts  
 (88) Other damage source (specify):  
 \_\_\_\_\_

- (95) Damaged, unknown source  
 (96) Deployed, unknown if damaged  
 (97) Not deployed  
 (98) Unknown if deployed  
 (99) Unknown

45. Was The Air Bag Tethered? 1

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of tether straps):  
 \_\_\_\_\_  
 (3) Deployed, unknown if tethered  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

46. Did The Air Bag Have Vent Ports? 1

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of vent ports):  
 \_\_\_\_\_  
 (3) Deployed, unknown if vent ports present  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

47. Was the Air Bag in this Occupant's Position  
Contacted by Another Occupant? 1

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):  
 \_\_\_\_\_  
 (3) Deployed, unknown if other occupant contact  
 to air bag  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

48. Was This Occupant Wearing Eye-wear? 1

- (0) Not equipped/not available  
 (1) No  
 (2) Eyeglasses/sunglasses  
 (3) Contact lenses  
 (4) Deployed, unknown if eyewear worn  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

49. Head Restraint Type/Damage by Occupant  
at This Occupant Position 1

- (0) No head restraints  
 (1) Integral—no damage  
 (2) Integral—damaged during accident  
 (3) Adjustable—no damage  
 (4) Adjustable—damaged during accident  
 (5) Add-on—no damage  
 (6) Add-on—damaged during accident  
 (8) Other (specify):  
 \_\_\_\_\_  
 (9) Unknown

50. Seat Type (this Occupant Position) 02

- (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Box mounted seat (i.e., van type)  
 (10) Other seat type (specify):  
 \_\_\_\_\_  
 (99) Unknown

51. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):  
 \_\_\_\_\_  
 (9) Unknown

52. Seat Track Adjusted Position Prior To Impact 6

- (0) Occupant not seated or no seat  
 (1) Non-adjustable seat track

**Adjustable Seat Track**

- (2) Seat at forward most track position  
 (3) Seat between forward most and middle track  
 positions  
 (4) Seat at middle track position  
 (5) Seat between middle and rear most track  
 positions  
 (6) Seat at rear most track position  
 (9) Unknown

**HEAD RESTRAINT AND SEAT EVALUATION** *continued***53. Seat Back Incline Prior and Post Impact** 14

- (00) Occupant not seated or no seat  
 (01) Not adjustable

*Upright prior to impact*

- (11) Moved to completely rearward position  
 (12) Moved to rearward midrange position  
 (13) Moved to slightly rearward position  
 (14) Retained pre-impact position  
 (15) Moved to slightly forward position  
 (16) Moved to forward midrange position  
 (17) Moved to completely forward position

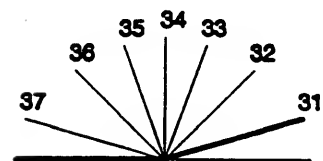
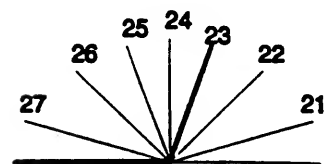
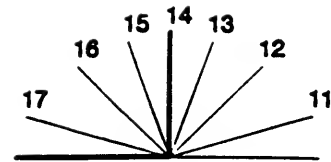
*Slightly reclined prior to impact*

- (21) Moved to completely rearward position  
 (22) Moved to rearward midrange position  
 (23) Retained pre-impact position  
 (24) Moved to upright position  
 (25) Moved to slightly forward position  
 (26) Moved to forward midrange position  
 (27) Moved to completely forward position

*Completely reclined prior to impact*

- (31) Retained pre-impact position  
 (32) Moved to rearward midrange position  
 (33) Moved to slightly rearward position  
 (34) Moved to upright position  
 (35) Moved to slightly forward position  
 (36) Moved to forward midrange position  
 (37) Moved to completely forward position

(99) Unknown

**54. Seat Performance (this Occupant Position)** 1

- (0) Occupant not seated or no seat  
 (1) No seat performance failure(s)  
 (2) Seat adjusters failed  
 (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_  
 (4) Seat track/anchors failed  
 (5) Deformed by impact of occupant  
 (6) Deformed by passenger compartment intrusion, (specify): \_\_\_\_\_  
 (7) Combination of above (specify): \_\_\_\_\_  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 1 1 8  
 (000) No child safety seat  
 Applicable codes are found in your NASS CDS  
 Data Collection, Coding and Editing  
 (950) Built-in child safety seat  
 (997) Other make/model (specify):  
Fisher-Price # [REDACTED]  
 (998) Unknown make/model  
 (999) Unknown if child safety seat used

56. Type of Child Safety Seat 1  
 (0) No child safety seat  
 (1) Infant seat  
 (2) Toddler seat  
 (3) Convertible seat  
 (4) Booster seat - with shield  
 (5) Booster seat - without shield  
 (7) Other type child safety seat (specify):  
 \_\_\_\_\_  
 (8) Unknown child safety seat type  
 (9) Unknown if child safety seat used

57. Child Safety Seat Orientation 0 1  
 (00) No child safety seat  
*Designed for Rear Facing for This Age/Weight*  
 (01) Rear facing  
 (02) Forward facing  
 (08) Other orientation (specify):  
 \_\_\_\_\_  
 (09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*  
 (11) Rear facing  
 (12) Forward facing  
 (18) Other orientation (specify):  
 \_\_\_\_\_  
 (19) Unknown orientation

*Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*  
 (21) Rear facing  
 (22) Forward facing  
 (28) Other orientation (specify):  
 \_\_\_\_\_  
 (29) Unknown orientation  
 (99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 1 2

59. Child Safety Seat Shield Usage 1 2

60. Child Safety Seat Tether Usage 0 1

Note: Options below applicable to  
 Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*

- (01) After market harness/shield/tether  
 added, not used  
 (02) After market harness/shield/tether used  
 (03) Child safety seat used, but no after market  
 harness/shield/tether added  
 (09) Unknown if harness/shield/tether  
 added or used

*Designed With Harness/Shield/Tether*

- (11) Harness/shield/tether not used  
 (12) Harness/shield/tether used  
 (19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

- (21) Harness/shield/tether not used  
 (22) Harness/shield/tether used  
 (29) Unknown if harness/shield/tether used  
 (99) Unknown if child safety seat used

**INJURY CONSEQUENCES**61. Injury Severity (Police Rating) 1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):  
\_\_\_\_\_
- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_

(9) Unknown

64. Hospital Stay 05

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 97

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP WORK HERE****VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES****TRAUMA DATA**66. Time to Death 00

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal  
(96) Fatal - ruled disease  
(99) Unknown

67. 1st Medically Reported Cause of Death 0068. 2nd Medically Reported Cause of Death 0069. 3rd Medically Reported Cause of Death 00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes  
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant 08

8 Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries  
(97) Injured, details unknown  
(99) Unknown if injured

71. Glasgow Coma Scale (GCS) Score 14  
(at Medical Facility)

- (00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured

72. Was the Occupant Given Blood? 2

- (1) No - blood not given  
(2) Yes - blood given  
(specify units): 1  
(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO<sub>3</sub> 20

- (00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the HCO<sub>3</sub>  
(96) ABGs reported, HCO<sub>3</sub> unknown  
(97) Injured, details unknown  
(99) Unknown if injured

19.6 Base Excess = -5.7

**BELT USE DETERMINATION**74. Primary Source of Belt Use Determination 1

- (0) Not equipped/not available/destroyed or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify):  
(9) Unknown if belt used

**Appendix L:**

**NASS CDS OCCUPANT INJURY FORM:  
CASE VEHICLE RIGHT FRONT PASSENGER**



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## OCCUPANT INJURY FORM

Form Approved  
O.M.B. No. 2127-0021  
NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

10

3. Vehicle Number

01

2. Case Number - Stratum

9521

4. Occupant Number

02

### INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	A.I.S. - 90					Injury Source	Injury Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number		
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity						
Bilateral 1st Subdural hematomas	5. <u>2</u>	6. <u>1</u>	7. <u>4</u>	8. <u>06</u>	9. <u>54</u>	10. <u>5</u>	11. <u>3</u>	12. <u>180</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>
Diffuse axonal injury, (R)	16. <u>2</u>	17. <u>1</u>	18. <u>4</u>	19. <u>06</u>	20. <u>28</u>	21. <u>5</u>	22. <u>1</u>	23. <u>180</u>	24. <u>1</u>	25. <u>1</u>	26. <u>00</u>
Intraventricular hemorrhage	27. <u>2</u>	28. <u>1</u>	29. <u>4</u>	30. <u>06</u>	31. <u>78</u>	32. <u>4</u>	33. <u>1</u>	34. <u>180</u>	35. <u>1</u>	36. <u>1</u>	37. <u>00</u>
Subarachnoid hemorrhage (R)	38. <u>2</u>	39. <u>1</u>	40. <u>4</u>	41. <u>06</u>	42. <u>84</u>	43. <u>3</u>	44. <u>1</u>	45. <u>180</u>	46. <u>1</u>	47. <u>1</u>	48. <u>00</u>
Subarachnoid hemorrhage (L)	49. <u>2</u>	50. <u>1</u>	51. <u>4</u>	52. <u>06</u>	53. <u>84</u>	54. <u>3</u>	55. <u>2</u>	56. <u>180</u>	57. <u>1</u>	58. <u>1</u>	59. <u>00</u>
Concussion with deficit	60. <u>2</u>	61. <u>1</u>	62. <u>6</u>	63. <u>04</u>	64. <u>04</u>	65. <u>2</u>	66. <u>0</u>	67. <u>180</u>	68. <u>1</u>	69. <u>1</u>	70. <u>00</u>
Fx (L) parietal skull	71. <u>2</u>	72. <u>1</u>	73. <u>5</u>	74. <u>04</u>	75. <u>02</u>	76. <u>2</u>	77. <u>2</u>	78. <u>180</u>	79. <u>1</u>	80. <u>1</u>	81. <u>00</u>
Fx (R) parietal skull	82. <u>2</u>	83. <u>1</u>	84. <u>5</u>	85. <u>04</u>	86. <u>02</u>	87. <u>2</u>	88. <u>1</u>	89. <u>180</u>	90. <u>1</u>	91. <u>1</u>	92. <u>00</u>
9th	93. <u>  </u>	94. <u>  </u>	95. <u>  </u>	96. <u>  </u>	97. <u>  </u>	98. <u>  </u>	99. <u>  </u>	100. <u>  </u>	101. <u>  </u>	102. <u>  </u>	103. <u>  </u>
10th	104. <u>  </u>	105. <u>  </u>	106. <u>  </u>	107. <u>  </u>	108. <u>  </u>	109. <u>  </u>	110. <u>  </u>	111. <u>  </u>	112. <u>  </u>	113. <u>  </u>	114. <u>  </u>

# OCCUPANT INJURY DATA

Source of Injury Data	A.I.S. - 90				Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	
11th	---	---	---	---	---	---	---
12th	---	---	---	---	---	---	---
13th	---	---	---	---	---	---	---
14th	---	---	---	---	---	---	---
15th	---	---	---	---	---	---	---
16th	---	---	---	---	---	---	---
17th	---	---	---	---	---	---	---
18th	---	---	---	---	---	---	---
19th	---	---	---	---	---	---	---
20th	---	---	---	---	---	---	---
21st	---	---	---	---	---	---	---
22nd	---	---	---	---	---	---	---
23rd	---	---	---	---	---	---	---
24th	---	---	---	---	---	---	---
25th	---	---	---	---	---	---	---



## OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>		(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(4) Central
(5) Abdomen		To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified	The exceptions to this rule apply to:		(9) Unknown
			(0) Whole region
<b>Type of Anatomic Structure</b>	<u>Whole Area</u>		
(1) Whole Area	(02) Skin - Abrasion		
(2) Vessels	(04) Skin - Contusion		
(3) Nerves	(06) Skin - Laceration		
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion		
(5) Skeletal (includes joints)	(10) Amputation		
(6) Head - LOC	(20) Burn		
(9) Skin	(30) Crush		
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		
		<b>Abbreviated Injury Scale</b>	
		(1) Minor Injury	
		(2) Moderate Injury	
		(3) Serious Injury	
		(4) Severe Injury	
		(5) Critical Injury	
		(6) Maximum (untreatable)	
		(7) Injured, unknown severity	
<b>SOURCE OF INJURY DATA</b>	<b>INJURY SOURCE CONFIDENCE LEVEL</b>	<b>DIRECT/INDIRECT INJURY</b>	
<u>OFFICIAL RECORDS</u>			
(1) Autopsy records with or without hospital/medical records	(1) Certain	(1) Direct contact injury	
(2) Hospital/medical records other than emergency room (e.g., discharge summary)	(2) Probable	(2) Indirect contact injury	
(3) Emergency room records only (including associated X-rays or other lab reports)	(3) Possible	(3) Noncontact injury	
(4) Private physician, walk-in or emergency clinic	(9) Unknown	(7) Injured, unknown source	
<u>UNOFFICIAL RECORDS</u>			
(5) Lay coroner report			
(6) E.M.S. personnel			
(7) Interviewee			
(8) Other source (specify):			
(9) Police			

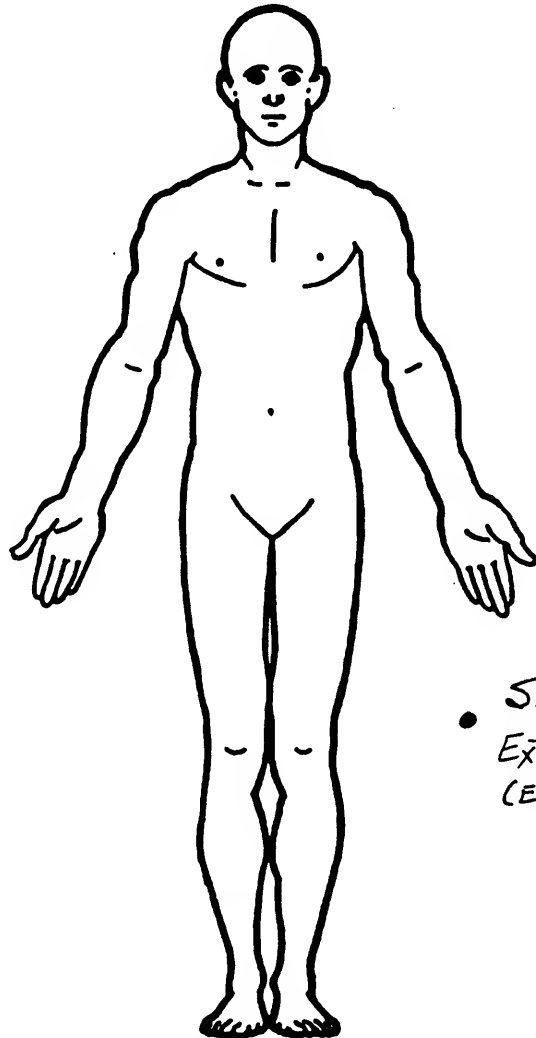
# OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

No marks noted on trunk, extremities.

Head symmetrical, no marks noted; Fontanelle soft (EN1)

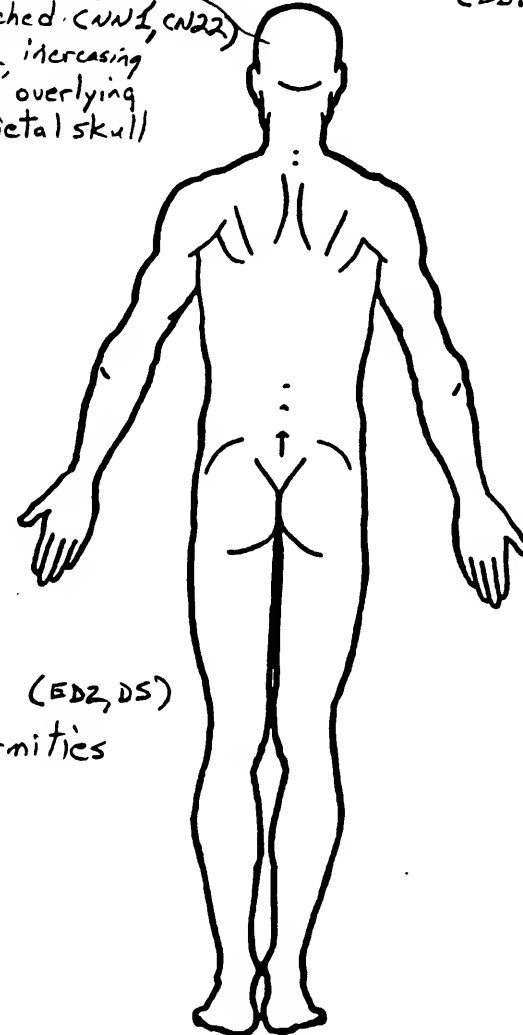
Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Hematoma @ head, Dr advised of second hematoma (NN1)



- Soft swollen area @ posterior occipital area, fuses when touched. (NN1, CN22)
- Scalp hematoma, increasing in size slightly, overlying @ temporal-parietal skull Fx (NN1, EX1)

- No lacerations, bleeding or bruises to scalp (ED2, CN22, DS)



- Skin — no bruises (ED2, DS)
- Extremities — no deformities (ED2, CN21)

• Air Bag inflated on impact (CN22, DS)

## OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

☐ No  
☒ Yes

Blood Alcohol  
Level (mg/dl)

BAL = \_\_\_\_

Glasgow Coma  
Scale Score

GCSS = 14

(CN22)

Units of Blood  
Given

Units = 1 PRBC

(FU1, FU2, TR,  
CN23, DS)

Arterial Blood  
Gases

pH = 7.30

PO<sub>2</sub> = 39.3

PCO<sub>2</sub> = 40.7

HCO<sub>3</sub> = 19.6

Measured!

(ER1)

Base Excess

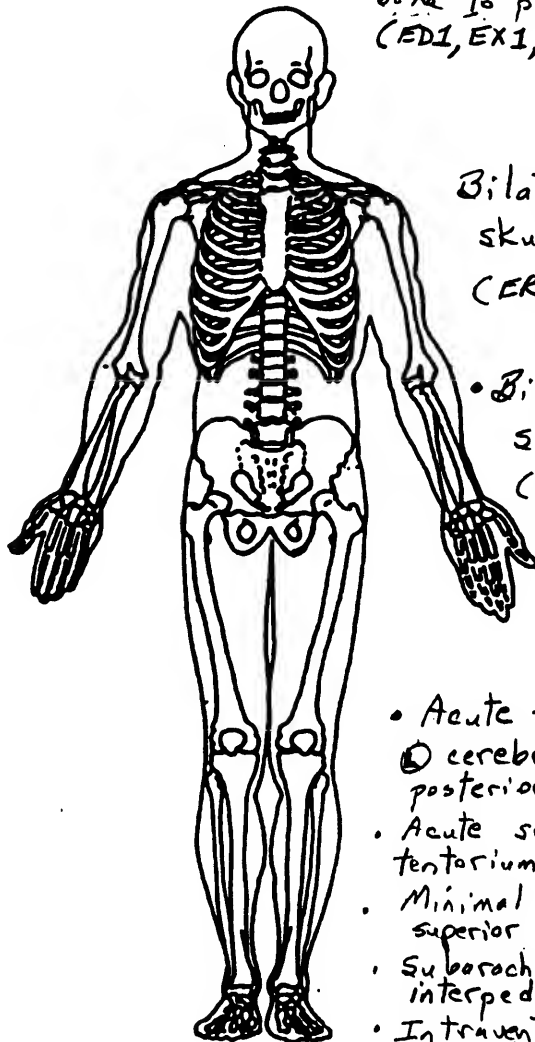
= -5.7

(LB)

In front seat... strapped in infant seat (EN1, ED1, ED2, NW2, CN21, CN22, CN23, DS)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Fracture (L) parietal skull, extending from (L) temporal bone to parietal convexity—stellate (ED1, EX1, DS, EX2, PX2)

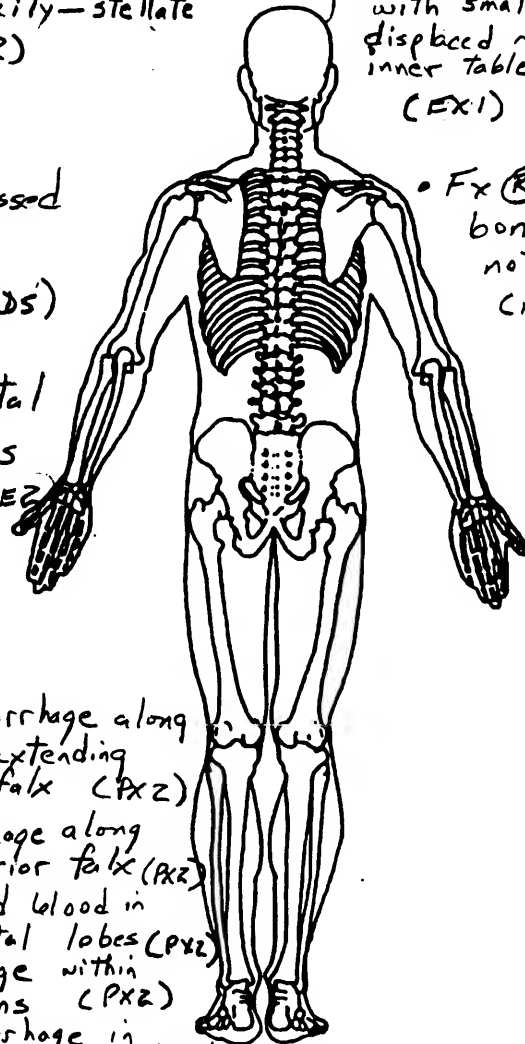


- Bilateral nondepressed skull fractures (ER2, CN22, CN23, DS)

- Bilateral parietal skull fractures (CN21, CN24, EE2, FU1, FU2)

- Acute subdural hemorrhage along (L) cerebral convexity extending posteriorly and along falx (PX2)
- Acute subdural hemorrhage along tentorium and (R) posterior falx (PX2)
- Minimal subarachnoid blood in superior bilateral parietal lobes (PX2)
- Subarachnoid hemorrhage within interpeduncular cisterns (PX2)
- Intraventricular hemorrhage in occipital horn of (R) lateral ventricle (PX2)

- Mildly comminuted (R) superior parietal skull Fx with small fragment displaced ~ 2 mm from inner table (EX1)



- Fx (R) parietal bone, depression not noted (EX2)

## INJURY SOURCES

### FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (019) Other front object (specify): \_\_\_\_\_

### LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): \_\_\_\_\_
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): \_\_\_\_\_

### RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): \_\_\_\_\_
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): \_\_\_\_\_

### INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): \_\_\_\_\_
- (155) Head restraint system
- (160) Other occupants (specify): \_\_\_\_\_
- (161) Interior loose objects
- (162) Child safety seat (specify): \_\_\_\_\_
- (163) Other interior object (specify): \_\_\_\_\_

### AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify): \_\_\_\_\_
- (195) Other air bag compartment cover (specify): \_\_\_\_\_

### ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

### FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

### REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): \_\_\_\_\_

### ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): \_\_\_\_\_
- (409) Additional or relocated switches, (specify): \_\_\_\_\_
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): \_\_\_\_\_

### EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antennae)
- (453) Other exterior surface or tires (specify): \_\_\_\_\_
- (454) Unknown exterior objects

### EXTERIOR of OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): \_\_\_\_\_
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): \_\_\_\_\_
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (514) Unknown exterior of other motor vehicle

### OTHER VEHICLE or OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify): \_\_\_\_\_
- (599) Unknown vehicle or object

### NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): \_\_\_\_\_
- (604) Air bag exhaust gases
- (697) Injured, unknown source

- Initially crying, now increasing lethargy (CN21)
- Crying but consolable, pale (in second ER) (ED2, CN22)

- No longer continues in just right gaze (CN23, DS)
- Eyes deviated to right (ED2, CN2, CN22, CN24, D, DS)

# OFFICIAL INJURY DATA — INTERNAL INJURIES

- Whining and sucking pacifier (on arrival in ER) (EN1)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- TM's shiny (ED1)
- Onset of (R) lateral gaze in ER (conjugate) (ED1, UN1, FU1, DS)

- Small intra hemispheric subdural hematoma, no intra parenchymal hemorrhage (CN22)

- Seizure in [redacted] (FU1, FU2, PN2, CN23, CN24, DS)
- No emesis (CN22)

- High attenuation noted in extra-axial space adjacent to Falx overlying (L) frontal lobe with acute hemorrhage in that location (EX1)

- Subdural hematoma, 5mm, (L) parietal, underlying skull fracture (ED1, ER1 or, EX1, FU1, FU2, ER2, CN21, CN22, CN23, CN24, DS)

- Bilateral subdural hematomas (CN24)

- Moves all extremities when disturbed (CN1, DS)

- High attenuation, approx extra-axial, overlying (R) superior posterior parietal lobe (EX1)

- Subarachnoid hemorrhage in frontal region (FU1, CN24, DS)

- Supratentorial subdural hematoma (CN23, CN24)

- Evidence of (R) occipital white matter shearing injury (CN23, CN24, DS)

- Increase in (L) subdural bleed (CN23, CN24, DS)

- Small area of high attenuation is present in (R) frontal cortex — hemorrhage (EX1, FU1)

- No definite loss of consciousness on impact, child cried out post impact (DS)

- Chest negative (EX1, DS)
- Abdomen negative (EX1, EX2)
- C-spine negative (EX1)

- Positive Babinski's (toes upgoing) (CN22, CN24, DS)
- No Battle's sign or raccoon's eyes (CN22)
- TM's clear (CN22, DS)

\* Tympanic Membranes

# CAUSE OF DEATH

Not Applicable

## ICD-9-CM

800.3 closed skull fracture with intracranial hemorrhage  
801.20 closed basilar fracture with subarachnoid, subdural, +  
extradural hemorrhage

## OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input type="checkbox"/> Unspecified	Not Tested	

## MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)

FU = Follow-up visits to family physician LB = Laboratory Reports  
EE = Electroencephalogram Report from Hospital Patient  
Transferred to.

TR = Transfusion Record

**MEDICAL RECORDS**  
**FROM**  
**INITIAL TREATMENT FACILITY**

NAME

[REDACTED] WI

AGE 01M  
SEX M  
M/S S

DOB [REDACTED]  
SSN [REDACTED]  
TEL [REDACTED]

MED REC#  
COUNTY  
F/C  
RELIGION CATH

PT

PREV NAME

7 weeks

PREV STAY  
RELIGION

NOTIFY IN CASE OF EMERGENCY  
AUNT

NEXT OF KIN  
[REDACTED]  
SAME AS PT

ADV. DIR.

EMPLOYER

[REDACTED] WI

NA

TELEPHONE

[REDACTED]

ATTENDING PHYS

ADMITTING PHYS

REFERRING PHYS

SURGEON

PT ACCT #

ADMITTED BY

ADMIT DATE

DISCH DATE

ADMIT TIME 0831

DISCH TIME

RELATIVE NOTIFIED N : DATE OF ONSET

ARRIVAL MODE 0

POLICE NOTIFIED N : TIME OF ONSET

MODE DETAIL

SOURCE OF INFORMATION--RELATIONSHIP--TELEPHONE

CURRENT COMPLAINT

MVA

ACCIDENT LOCATION

801.20  
800.3  
E812?



## EMERGENCY OUT-PATIENT CARE RECORD

## MODE OF ARRIVAL

☐ WALK ☐ CARRIED ☐ WHEEL CHAIR

WALK

AMBULANCE

## CURRENT COMPLAINT

Involved MVA

## NURSING HX ASSESSMENT - TIME

0820 Carried to ER by EMT.

In driver's seat of auto, stopped in impact seat.  
Auto on auto & possible accident. Child pale, skin  
cool & dry. Breathing & sucking peaceful. Completely  
disoriented & no motoric activity on trunk extremities.  
Head symmetrical, no motoric activity. Fontanelle soft.

DATE

NAME

BIRTHDATE

P.M.D.

ER PHYS.

PT. ACCT. NO.

195

TIME	BP	P	R	S.O.	TEMP
0820		164	48	96-100%	on RA

NURSE SIG.

## PHYSICIAN HX AND EXAM

Child was stopped in an infant seat  
in auto involved in MVA. Child brought  
to ER, awake, alert, pale, no bleeding.  
Deformities? Child has no history of medical  
problems. Problems? Child is awake.  
P.R. Child is awake, low arched pale.  
Pupils equal & reactive. TM's shiny, shiny.  
Mouth supple. Neck supple.  
Lungs - clear. Heart - No murmur or gallopes.  
Mostly all extremities.

LAST TET. TOX

CURRENT MEDS

ALLERGIES

ABG		
Amylase		
Blood Alcohol		
CBC		
Chem		
Culture		
Glucose		
Pregnancy		EKG
Trauma Pack		HHN with
UA		Repeat HHN

X-RAYS

CT-head 3v CT-abd 3v CT-chest 3v

TREATMENTS - MEDICATIONS GIVEN

0830 wheeled in water  
blanket. Color remains  
pale. Dying.

## PHYSICIAN'S DIAGNOSIS

Subdural Hematoma

## DISCHARGE ORIENTATION

Guarded

## PHYSICIAN INSTRUCTION &amp; FOLLOW-UP

1) At [redacted] nursery, consult  
2) Child transferred to [redacted] - capsule of endotracheal intubation of child

## PHYSICIAN SIGNATURE X

## DISPOSITION

HOME ☐ ADMIT ☐ P.M.D. OFFICE ☐ EXPIRED ☐TRANSFER ☒ [redacted] Per Meds WITH R.N. ☐ TIME

## COPY OF RECORDS SENT WITH PATIENT

☐ CHART ☐ LAB ☐ X RAYS

## DISCHARGE TIME

1012

FORM NO. 2008

MEDICAL RECORDS

115A

**EMERGENCY  
DEPARTMENT 95  
NOTES**

Date/Time

0845 Lab here. (1) heel stick done. Wimpered but little cry during blood draw. HR 140 RR 32. Left lower area (2) posterior occipital area - baby fusses when this area touched. Dr. [redacted] advised of condition & checked baby. Eyes open & gaze to right. Mucous membranes & umbilicus present. Child's skin moist. Bowel of soft brown stool; changed. Abd. soft. 0900 CT & C-spine X-rays ordered. Remains pale. Skin cool & dry. Wimpered occasionally. Temp 97.6 rectal.

0910 Father present. Wimpered occasionally while being held. Pale, skin cool, dry.

0915 To CT. Dying. HR 132 RR 30. Dr. [redacted] present for CT.

0930 On CT RR 36 Dying. Color some.

0932 HR 132 RR 40 Repositioned for CTs of Abd & Chest. Moves all extremities when disturbed.

0940 Crying. Pupils given. HR 144 RR Crying 48. Little color change & crying. Bundled to maintain warmth. Slight ↑ in size of scalp hematoma.

0955 C-spine X-rays taken - Wimpered intermittently. When eyes open - gaze to right. Color unchanged. HR 156 RR 48. Hematoma present on head. ID band on (R) ankle. Dr. [redacted] to try to ↑ child's

1000 Moving all extremities. Crying softly. Gaze to right. Abd. soft. Fontanel more firm but still soft. Bundled for warmth.

1005 Returned to X-ray. Dr. [redacted] advised of 2nd hematoma.

1010 Medix Paramedic unit here for transfer. Re-✓ by Dr. [redacted]. Report to [redacted]

1012 Transferred to ambulance.

Signature

[redacted] RN

Page

1 of 1

PATIENT NAME:

MED REC #:

PHYSICIAN:

ROOM #: ER

DOB:

DATE: 11/19/95

EXAM: CT OF ABDOMEN, HEAD, CHEST

REASON FOR CT SCAN: MVA ACCIDENT

AREA OF INTEREST:

---

CT OF HEAD, CHEST AND ABDOMEN WITH TOPOGRAM:

CLINICAL HISTORY: MVA.

PROCEDURE: CT scan of the chest, abdomen and head with axial 8 mm scans without IV contrast injection.

FINDINGS:

There is a left temporal parietal skull fracture that extends from the temporal bone to the parietal convexity. There is no definite depression. There is also a mildly comminuted right superior parietal skull fracture with a small calcific fragment displaced about 2 mm from the inner table. There is a scalp hematoma overlying the left temporal-parietal skull fracture.

There is a subdural hematoma of about 5 mm thickness in the left parietal area underlying the skull fracture. The extra-axial space overlying the left temporal and frontal lobes is widened with increased density of the CSF in this area. A small amount of high attenuation is noted in the extra-axial space adjacent to the falx overlying the left frontal lobe compatible with acute hemorrhage in that location.

There also is high attenuation that appears to be extra-axial in location that overlies the superior posterior right parietal lobe. A small area of high attenuation is present in the right frontal cortex.

The ventricular system is normal in size, without evidence of mass effect or midline shift.

The chest shows no definite mediastinal hematoma. The lung fields are negative for evidence of focal infiltrate or pneumothorax.

Abdominal scans show normal size liver and spleen without definite hematoma. Soft tissue opacity in the area of the pancreas could be unopacified bowel loops but a hematoma cannot be excluded. No cul-de-sac fluid was identified.

CT SCAN WITH TOPOGRAM REPORT

PATIENT NAME:

MED REC #:

PHYSICIAN:

ROOM #: ER

DOB:

DATE: [REDACTED]/95

EXAM: CT OF ABDOMEN, HEAD, CHEST

REASON FOR CT SCAN: MVA ACCIDENT

AREA OF INTEREST:

---

IMPRESSION:

1. Left temporal-parietal skull fracture with an underlying subdural hematoma that shows intermediate and high density components.
2. High attenuation extra-axial hemorrhage in the right posterior superior parietal area.
3. Small amount of high attenuation adjacent to the anterior left falx, possibly part of the subdural hematoma described previously or a second extra-axial hemorrhage collection.
4. Small right frontal cortical hemorrhage.
5. Superior right parietal skull fracture which is mildly comminuted with a small fragment depressed about 2 mm.
6. No definite abnormality of the chest and abdomen although unopacified bowel loops are seen and prevents exclusion of hematoma in the pancreas.

MD  
\_\_\_\_\_  
M.D.  
Radiologist

D & T: [REDACTED]/95

cc: Medical Records

Attending Physician:

Radiology

Radiologist

CT SCAN WITH TOPOGRAM REPORT

PATIENT NAME:

MED REC #:

PHYSICIAN:

ROOM #: ER

DOB:

DATE: 04/95

EXAM: LATERAL CERVICAL SPINE

REASON FOR X-RAY: MVA

---

LATERAL CERVICAL SPINE:

No fracture or subluxation was seen. There is prominence of the anterior soft tissues at the C4-C6 level although this could be related to the phase of inspiration. A previously described skull fracture is visible in the left parietal area.

IMPRESSION: Negative lateral cervical spine, without evidence of a fracture or subluxation.

Radiologist

\_\_\_\_\_  
, M.D.

D & T: 04/95

cc: Medical Records

Attending Physician:

Radiology

Radiologist

RADIOLOGY REPORT

117A

EMERGENCY DEPARTMENT

Transfer Form

+ Reason for Transfer Auto Accident - skull fracture

+ Receiving Facility has Accepted Patient: [REDACTED]  
Name of Facility [REDACTED]  
Name of Receiving MD [REDACTED]  
Name of Nurse Receiving Report Emergency Dept.

✓ Report to Receiving Facility:

✓ Copies of Chart Sent: ER Record ✓  
X-rays ✓ (CT)  
Lab ✓  
EKG ✓  
Other ✓

✓ ID Band On

✓ Family Here + Notified ✓

✓ Clothing/Belongings to father & grandmother

✓ Appropriate Means of Transport: [REDACTED] Ambulance  
Type of vehicle

✓ Persons Accompanying Patient: paramedic squad  
(MD, RN, RT, EMT, etc.)

Condition of Patient at Time of Transfer: Stable  
(MD to complete)

**PHYSICIAN'S CERTIFICATE OF TRANSFER**

I hereby certify that, based on the information available to me at the time of transfer, the medical benefits reasonably expected from the provision of appropriate medical care at another facility, and the transfer itself, outweigh the increased risk to the individual and, in the case of labor, to the unborn child. This certification is based on:

Benefits: It requires neurology consultation

Risks: Expanding intracranial hematoma

All transfers have inherent risks of traffic delays, accidents during transport, inclement weather, rough terrain or turbulence and the limitations of equipment and personnel present in the vehicle.

[REDACTED] MD [REDACTED] MD [REDACTED] 8/1  
Print Physician Name Physician Signature Date Time

**MEDICAL RECORDS  
FROM FACILITY TO WHICH  
OCCUPANT WAS TRANSFERRED AND HOSPITALIZED**





NAME				DATE				NAME				
AGE	D.O.B.	SEX	ARRIVAL TIME	TRIAGE TIME	TRIAGE CATEGORY				SEX			
6yrs		M	1055		UN UCC							
CHIEF COMPLAINT					ALLERGIES				MEDICAL RECORD NUMBER			
MVA skull fx. Transfer from [redacted]					WGT: 4.12				DATE OF BIRTH 1 / 1			
CURRENT MEDICATIONS:					B.W.				VISIT NUMBER PG 1 OF			
ACETAMINOPHEN DOSE: TIME: 0					TETANUS UTD				INJURY <input type="checkbox"/> NO <input type="checkbox"/> YES DATE: TIME:			
					<input type="checkbox"/> NOT UTD <input type="checkbox"/> N/A				PROTECTION: <input type="checkbox"/> LAP BELT <input type="checkbox"/> HELMET <input type="checkbox"/> SHOULDER BELT <input type="checkbox"/> AIRBAG <input type="checkbox"/> OTHER			
PERTINENT PMH					LOCATION: MVA - car seat front seat				INITIAL ASSESSMENT			
					ALERT / ACTIVE <input checked="" type="checkbox"/> EYES CLEAR <input checked="" type="checkbox"/> MUCUS MEMBRANES MOIST <input checked="" type="checkbox"/>							
RECENT EXPOSURE <input type="checkbox"/> C. POX <input type="checkbox"/> OTHER					Tale, moves all extremities. Fussy							
SICKLE CELL <input type="checkbox"/> POS <input type="checkbox"/> NEG <input type="checkbox"/> TRAT <input type="checkbox"/> UNKNOWN					Eyes deviated to R, only moves to							
					Malline, left forearm				RN SIGNATURE [redacted]			

TIME	NURSING NARRATIVE	IV SOLUTION #1	VOLUME INFUSED	RATE	SITE	INIT	IV SOLUTION #2	VOLUME INFUSED	RATE	SITE	INIT	IV DRIPS	VOLUME INFUSED	RATE	SITE	INIT
1055	MVA Placed in room 4	D5 in .25	1100	20	24 ga armpit	✓										
	Sec by MD EKG monitor and tachycardia		1300	20	60 heparin	✓										
1100	Hot work drawn off IV line		1340	20		✓										
	BB # [redacted] Quilt procedure															
1105	R/V added. Straight cathed 5															
	difficult clear yellow urine.															
	Chemstrip 160. Awaiting parents.															
1115	Resting quietly. Tachypnea.															
1130	A: Labs sent. Pt asleep on cart.															
1140	A: To X-ray															
1200	A: To CT scan, alert, stable															
1220	Returned to ER. Condition same.															
	Surgey, neurosurgery & PICU consults.															
	ADM CALLED @ 4677 PICU - 15															
	REPORT TO [redacted] RN @ 1305															

Disposition:		Time: 1345	
<input checked="" type="checkbox"/> Parent, Guardian	<input type="checkbox"/> Alert, Oriented	<input type="checkbox"/> Ambulatory	
<input type="checkbox"/> MPD/CPS	<input type="checkbox"/> Anxious, Crying	<input checked="" type="checkbox"/> Carried	
<input type="checkbox"/> Admit	<input checked="" type="checkbox"/> Asleep	<input type="checkbox"/> W/C, Cart	
<input type="checkbox"/> Other			
<input type="checkbox"/> Safety Issues discussed			
PRIMARY RN [redacted]			
RN SIGNATURES [redacted] RN/ [redacted]			

TIME	B/P	P	R	T	POX	TIME	B/P	P	R	T	POX
1100		78	120	57	✓						
1110	144	158	57		✓						
1130	144	158	60		✓						
12		142	56		✓						

MEDICAL RECORDS

120A

## CONSULTATION REPORT

SERVICE <u>Neurology</u>		C.N.22	
ATTENDING PHYSICIAN <u>[REDACTED]</u>		M.D.	
RESIDENT PHYSICIAN <u>[REDACTED]</u>		M.D.	
<input type="checkbox"/> PHYSICIAN CONSULTATION (CONSULTING PHYSICIAN) <input type="checkbox"/> 1. CONSULTATION, OPINION AND RECOMMENDATION ONLY <input type="checkbox"/> 2. CONSULTATION AND MANAGEMENT OF STATED CONDITIONS <input type="checkbox"/> 3. CONSULTATION AND TRANSFER TO YOUR SERVICE FOR COMPLETE MANAGEMENT		<input type="checkbox"/> INPATIENT/ROOM NO. <input type="checkbox"/> OUTPATIENT/CLINIC NAME REASON FOR CONSULTATION <u>MVA, acute SDH</u>	
<input type="checkbox"/> NURSING CONSULTATION (NURSE NAME)			
<input type="checkbox"/> OTHER CONSULTATION (SERVICE NAME)			
DATE REQUEST CONFIRMED		INITIALS OF UNIT SECRETARY	
CONSULTANT'S REPORT OF FINDINGS: DIAGNOSIS AND RECOMMENDATIONS			
<p>Hx: 6 y/o <u>♂</u> involved in MVA ~ 0830. Seated in rear facing car seat in front passenger seat driven by Grandmother. <del>car</del> Air bag inflated upon impact. <u>♂</u> definite LOC (initial history not clear), has remained awake and crying but consolable. <u>♂</u> H/o emesis.</p> <p><del>At admission, <u>♂</u> gave preference for left side. <u>♂</u> SDH no clear motor activity. <u>♂</u> hemodynamic compromise.</del></p> <p>PMHx: Unremarkable delivered via NSVD <u>♂</u> forceps.</p> <p>CT of head <u>[REDACTED]</u> → 3mm <u>①</u> parietal SDH and small intra-hemispheric SDH. Bilat nondepressed skull fx. Basilar <del>fractures</del> and subarachnoid spaces open. <u>♂</u> midline shift. <u>♂</u> <del>subarachnoid</del> thymal hemorrhage.</p> <p>Exam: Awake, cries strongly <u>±</u> interventions but consolable. <u>♂</u> <del>symmetrically</del> symmetrically to tactile stimulation. Conjugate gaze to <u>①</u>, will not cross midline. Pupils 3mm, <u>reactive</u> Bilat. <u>♂</u> red reflex on funduscopic exam. <u>♂</u> <del>no</del> no retinal hemorrhage.</p> <p>Physical exam: <u>①</u> parietal subgaleal soft tissue swelling</p>			

## CONSULTATION REPORT

DATE  
NAME

SEX

CN21

## SERVICE

**ATTENDING PHYSICIAN**

RESIDENT PHYSICIAN

☐ **PHYSICIAN CONSULTATION**

**(CONSULTING PHYSICIANS)**

- ☐ 1. CONSULTATION, OPINION AND RECOMMENDATION ONLY
- ☐ 2. CONSULTATION AND MANAGEMENT OF STATED CONDITIONS
- ☐ 3. CONSULTATION AND TRANSFER TO YOUR SERVICE FOR COMPLETE MANAGEMENT

☐ NURSING CONSULTATION (NURSE NAME)☐ OTHER CONSULTATION (SERVICE NAME)

DATE REQUEST CONFIRMED

INITIALS OF UNIT SECRETARY

CONSULTANT'S REPORT OF FINDINGS: DIAGNOSIS AND RECOMMENDATIONS

Pt is blk old WM, transferred from [redacted] Soc wld  
of mntd level fa's, small submental lesion. Initial P  
of 156-stable. Retained infant scrub, front of [redacted] vs  
~~can see as much as [redacted]~~ initially only front Pulmonary.  
Initial VS 102/dop 142-168, crying, 52-60 Sats 100% RA.  
Wt 9.12 kg T 37° Pale. No IVF @ [redacted]  
Fast neck de. [redacted] pubertally to [redacted], but does look [redacted]. No lcs.  
MAE. No spottiness. Lys occasionally. N. deformity.  
Chest clear No deformity.

Regular. AST 4X Any 9  
All Sol. 0.15 (0.5)  $\rightarrow$  (1.1) 16.3 ALT 3X

Shall this ~~matter~~ ~~shall~~ be decided (B).

CT chest (God-side) ~~normal~~ CT Abd (here) No solid organ injury. No pelvic fluid  
A/P Infant note ~~the~~ trauma, skull fx, anemia ~~to~~ ball

① Stable - 100%

Adult Population of 1960s & 1970s

**SIGNATURE**

**SIGNATURE**

**MTE**

D

## CONSULTATION REPORT

CN22 (cont'd)

SERVICE <u>Neurosurgery</u>			
ATTENDING PHYSICIAN <u>[Redacted]</u>			
RESIDENT PHYSICIAN <u>[Redacted]</u>		M.D.	
<input type="checkbox"/> PHYSICIAN CONSULTATION (CONSULTING PHYSICIAN) <input type="checkbox"/> 1. CONSULTATION, OPINION AND RECOMMENDATION ONLY <input type="checkbox"/> 2. CONSULTATION AND MANAGEMENT OF STATED CONDITIONS <input type="checkbox"/> 3. CONSULTATION AND TRANSFER TO YOUR SERVICE FOR COMPLETE MANAGEMENT		<input type="checkbox"/> INPATIENT/ROOM NO. <input type="checkbox"/> OUTPATIENT/CLINIC NAME REASON FOR CONSULTATION  Page 2/2	
<input type="checkbox"/> NURSING CONSULTATION (NURSE NAME)			
<input type="checkbox"/> OTHER CONSULTATION (SERVICE NAME)			
DATE REQUEST CONFIRMED		INITIALS OF UNIT SECRETARY	
CONSULTANT'S REPORT OF FINDINGS: DIAGNOSIS AND RECOMMENDATIONS			
(Exam cont.) <u>8 Battle's</u> <u>8 Racine's</u> <u>TM's clear</u> <u>glaciations</u> <u>Mono symmetric.</u> <u>Bilat TT toes</u> <u>8 clonus</u> <u>AF soft, good pulsations.</u> <u>Sutures not diastolic</u> (last part) <del>Top of head</del> <u>2nd MVA</u> <del>right side</del> <u>FX</u> <u>Fr 3</u> <u>acute SDH.</u> <u>GCS=14</u> <u>E=4</u> <u>M=6</u> <u>V=4</u> <u>Plan: Agree to admit to PICU for serial neuro exams.</u> <u>↑ HOB</u> <u>30°, maintain normotension.</u> <u>Repeat CT of head in am</u> <u>or sooner if any Δ in neuro exam.</u> <u>Consider prophylactic</u> <u>load to AED's.</u> <u>Need to clear spine radiographically.</u> <u>[Signature]</u>			
SIGNATURE		DATE <u>11/95</u>	

MR#:

DOS: 95

CN 23

Patient examined, history and chart reviewed. Labs scheduled, reviewed and revised (1 hour).

CHIEF COMPLAINT: MVA victim restrained in front seat in an infant seat and sustained left and right skull fractures and an acute subdural.

INTERVAL HISTORY: Summarized in house officer's notes. Overnight had continued to drop Hct. When his Hct had fallen below 18, he was transfused with 100 cc of PRBC's. He has remained hemodynamically stable. This a.m. he had a seizure which lasted less than 5 mins and is described as bicycling of his lower extremities and tonic-clonic movements of his left arm.

PHYSICAL EXAM: Summarized in house officer's notes. This morning prior to seizure, the pt was awake and alert. He not only gazed to the right but was able to look to the left also. He moved all 4 extremities equal. His anterior fontanelle was open and soft. He had a good cry and a good suck. Lungs are clear, and heart was regular without murmur. Abdomen was soft.

LAB VALUES/X-RAYS: Summarized in house officer's notes. Hgb was 11.5 and Hct was 35.1. Had 277,000 platelets. White count of 8.8. PT was 12.1, PTT was 32.4, fibrinogen was 391.

ASSESSMENT/PLANS:

1. CARDIO-RESPIRATORY: Stable without any problems. We will continue to closely monitor if mental status changes should occur.
2. FLUIDS,LYTES,NUTRITION: Pt tolerated taking 2 oz this morning. After seizure, the pt was made NPO. We will likely restart the feeds on the pt early this afternoon after re-evaluation by Neurosurgery.
3. HEMATOLOGIC: There is still some concern that pt is continuing to bleed. Latest Hct after transfusion was 35. We will continue to follow this.
4. NEUROLOGIC: Pt has had some improvement in neurologic status where he no longer continues in just a right gaze. The 1 seizure this morning is not uncommon following such head trauma. The pt had a repeat CT scan done this morning showing more acute supra-tentorial subdural blood. There was also evidence of a right occipital shearing injury and increase in the previous subdural bleeds. This CT along with the seizure will be re-evaluated by Neurosurgery for their recommendations. We will load the pt with Dilantin.

\_\_\_\_\_, M.D.

Fellow, \_\_\_\_\_

\_\_\_\_\_, M.D.

Associate Medical Director, \_\_\_\_\_

# CONSULTATION REPORT

SERVICE <u>Neurology</u>		CN24	
ATTENDING PHYSICIAN			
RESIDENT PHYSICIAN			
<input type="checkbox"/> PHYSICIAN CONSULTATION <small>(CONSULTING PHYSICIAN)</small> <input type="checkbox"/> 1. CONSULTATION, OPINION AND RECOMMENDATION ONLY <input type="checkbox"/> 2. CONSULTATION AND MANAGEMENT OF STATED CONDITIONS <input type="checkbox"/> 3. CONSULTATION AND TRANSFER TO YOUR SERVICE FOR COMPLETE MANAGEMENT		<input type="checkbox"/> INPATIENT/ROOM NO. <input type="checkbox"/> OUTPATIENT/CLINIC NAME REASON FOR CONSULTATION <u>To evaluate for Sz.</u>	
<input type="checkbox"/> NURSING CONSULTATION (NURSE NAME)			
<input type="checkbox"/> OTHER CONSULTATION (SERVICE NAME)			
DATE REQUEST CONFIRMED		INITIALS OF UNIT SECRETARY	
CONSULTANT'S REPORT OF FINDINGS: DIAGNOSIS AND RECOMMENDATIONS			
<p>Pt. is a 7wk old male s/p MVA on <u>1/95</u>. Pt. was transferred from <u>[redacted]</u> hosp. after being found to have (L) &amp; (R) parietal skull frac. &amp; subdural hematomas. Reportedly on the PICU he had a (R) gaze preference &amp; one episode of a TC sz starting from (L) side of the body. A CT on <u>[redacted]</u> reported as showing ↑ (L) subdural hematoma, bleeding lentorium, SA bleed in frontal region &amp; shearing injury to (R) occipital white matter. No surg <u>[redacted]</u> was done.</p>			
<p>P.MHX NSVD 39 <u>[redacted]</u> milestones to date          FHX Non contrick SHx lung &amp; man.          Allergy <u>φ</u> <u>[redacted]</u> <u>φ</u>          See also staff Note →</p>			
SIGNATURE		DATE <u>1/25</u>	

## CONSULTATION REPORT

CN 24 (cont'd.)

SERVICE <b>NEUROLOGY</b>	
ATTENDING PHYSICIAN	
RESIDENT PHYSICIAN [REDACTED]	M.D.
<input checked="" type="checkbox"/> PHYSICIAN CONSULTATION	<input type="checkbox"/> INPATIENT/ROOM NO. <input type="checkbox"/> OUTPATIENT/CLINIC NAME REASON FOR CONSULTATION <b>Head trauma</b>
(CONSULTING PHYSICIAN)	
<input type="checkbox"/> 1. CONSULTATION, OPINION AND RECOMMENDATION ONLY <input type="checkbox"/> 2. CONSULTATION AND MANAGEMENT OF STATED CONDITIONS <input type="checkbox"/> 3. CONSULTATION AND TRANSFER TO YOUR SERVICE FOR COMPLETE MANAGEMENT	
<input type="checkbox"/> NURSING CONSULTATION (NURSE NAME)	
<input type="checkbox"/> OTHER CONSULTATION (SERVICE NAME)	
DATE REQUESTED <b>1/9/85</b>	INITIALS OF UNIT SECRETARY
CONSULTANT'S REPORT OF FINDINGS: DIAGNOSIS AND RECOMMENDATIONS	
<p><b>Neuro Staff - Hx per Dr. [REDACTED]</b> Exam reveals an infant lying on back, eyes closed, rouses &amp; opens eyes, remains generally quiet but occasionally initiates. Makes fleeting eye contact &amp; follows face. Head is to left, somewhat protruded in type of vertical dimension. AF is flat, sutures sl. open. Pupils reactive, normal. EOM full. Oculogyric movements, sl. tendency to look to left. CN V-XII intact. Motor: symmetrical movements &amp; tone. DTRs: <b>2+</b> prominent "Babinski attitudes" of toes. <b>2+</b> said to be present in father as well.</p> <p><b>Imp:</b> S/P head trauma &amp; biparietal skull fx, @ subdural hematomas, &amp; focal swelling. In this setting can be caused by craniocerebral contusion, instability factor of subdural (+ subarachnoid) hemorrhage; combination of factors.</p> <p><b>Ref:</b> cont. <b>Q10</b> target level <math>&gt;10</math>. Test absorption by trying P.O. route &amp; IV levels (would anticipate difficulty in maintaining good <b>Q10</b> levels by P.O. route in infant). (Try <b>Q10</b> if cannot use <b>Q10</b>)</p> <p><b>EKG</b> <b>Q10</b> <b>DIC</b>. Would <b>D/C</b> on <b>AED Rx</b> and <b>Flu</b> <b>2</b> <b>3</b> hrs to decide about long term Rx</p>	
SIGNATURE <b>Neuro Clinic</b>	DATE <b>1/9/85</b>

PATIENT:  
MR:  
DOB:  
AGE: 6 weeks  
VISIT #:  
ADM. DATE: [REDACTED] /95  
DISC. DATE: [REDACTED] /95  
PHYSICIAN: [REDACTED], M.D.  
RESIDENT: [REDACTED], M.D.

#### DISCHARGE SUMMARY

##### ADMITTING DIAGNOSIS:

1. Bilateral nondepressed skull fracture.
2. Subdural bleed.

##### DISCHARGE DIAGNOSIS:

1. Bilateral nondepressed skull fracture.
2. Subdural bleed.
3. Subarachnoid bleed.

##### OTHER DIAGNOSES:

1. Seizure secondary to above.
2. Fever rule out sepsis.

PROCEDURES: Lumbar puncture.

HISTORY OF PRESENT ILLNESS: The patient is a 6-week-old white male who on the day of admission was involved in a motor vehicle accident. Grandmother stated that patient was in the front seat in a car seat when she rear-ended a car in front of her traveling at approximately 45 miles per hour. Airbags in her car were engaged. On the scene there was no definite loss of consciousness, with the child reportedly crying out on impact. The patient was brought initially to [REDACTED] Emergency Room where he was noted to be awake and alert with no obvious injuries. The child was noted to have a right-sided gaze bilaterally at that time. Head CT at [REDACTED] showed a left parietal skull fracture with a 5 mm subdural hematoma. Chest CT was grossly normal. The patient was transferred to [REDACTED] Hospital [REDACTED] for further evaluation. A review of the head CT from [REDACTED] showed a left and right subdural nondepressed skull fracture with a small subdural bleed on the left. Of note a hemoglobin in [REDACTED] Hospital [REDACTED] Emergency Room was 6.8. The patient was admitted to the PICU where surgery and neurosurgery consults were obtained.

ADMITTING PHYSICAL EXAMINATION: General: The patient was arousable, crying when examined, sleeping in-between with spontaneous eye opening. Skin: Slightly pale, without laceration or bruising. Head and neck: Eyes: The pupils were equal and reactive to light and accommodation. Sclera not icteric, preferential right gaze. Ears: Tympanic membranes clear bilaterally. Nose: No discharge. Throat/Mouth: Oropharynx clear, moist, pink and without lesions. Respiratory: Lungs clear to auscultation bilaterally, without wheezing, rales or rhonchi. Cardiovascular: Regular rate and rhythm with slight tachycardia. No murmurs, rubs or gallops.



PATIENT:  
MR:  
DOB:  
AGE: 6 weeks  
VISIT #:  
ADM. DATE: [REDACTED] 95  
DISC. DATE: [REDACTED] /95  
PHYSICIAN: [REDACTED], M.D.  
RESIDENT: [REDACTED], M.D.

Pulses 2/4 bilaterally and symmetrical. Capillary refill less than two seconds. Gastrointestinal: Soft, nontender, nondistended and no masses. Genitourinary: Circumcised male and testes both descended. Musculoskeletal: Moving all four extremities equally. Neurologic: Positive suck, grasp and Moro. Right gaze as above noted. Reflexes 2/5 bilaterally throughout. Babinski's both toes upgoing.

HOSPITAL COURSE: The patient was admitted to the PICU where surgical consult was obtained. Their recommendation included to admit to the PICU, to monitor for any neurological changes with neurological checks and a neurosurgery consult. Neurosurgery consult was obtained, who recommended:

1. Admit to PICU for serial neurological exams.
2. Maintain head of bed at 30 degrees.
3. Maintain normal volemia.
4. Repeat CT of the head in the morning or sooner if there are any changes in neurological exam.

At this time it was felt there was no need for surgical intervention. Of note, in the PICU was a persistence of the right lateral gaze which resolved on [REDACTED] 95. On [REDACTED] 95 the patient had a tonic clonic seizure which was felt to be a normal sequelae of injury suffered in the motor vehicle accident. A head CT obtained on [REDACTED] 95 showed an increase of the left subdural hematoma bleeding along the tentorium, subarachnoid bleeding in the frontal region and a shearing injury to the right occipital white matter. Also of note, in the PICU the patient had a drop in his hemoglobin requiring a transfusion.

On transfer to the floor on [REDACTED] 95 the patient's hemoglobin was stable. A laboratory draw which showed a decreased hemoglobin to 9.8 from a post transfusion level of 13 was felt to be due to laboratory error. The patient did have a fever spike to 39.0 on [REDACTED] 95 and was started empirically on Rocephin 400 mg IV q.6h. to be given until cultures were negative. Cultures turned out to be negative for 48 hours. The patient did have some persistence of fever which was felt to be secondary to injuries suffered in the motor vehicle accident, specifically with regard to blood in the brain. On [REDACTED] 95 after transfer to the floor, a neurology consult was obtained to evaluate for the seizure episode while in the PICU. The patient was started initially on Dilantin, however it was difficult to obtain consistent levels in the blood and the patient was switched to phenobarbital. An electroencephalogram was obtained on the day of discharge which was consistent with injuries suffered in the motor vehicle accident. There was no epileptiform focus on the electroencephalogram.

PATIENT:

MR:

DOB:

AGE: 6 weeks

VISIT #:

ADM. DATE: [REDACTED] 95

DISC. DATE: [REDACTED] /95

PHYSICIAN: [REDACTED], M.D.

RESIDENT: [REDACTED], M.D.

The patient was kept for observation on [REDACTED] 95 and [REDACTED] 95. The patient continued to have low grade fevers, but again this was felt to be due to the small bleeds the patient suffered. The patient was discharged on [REDACTED] 95 with the head circumference of 39.5, hemoglobin and hematocrit of 10.8 and 31.9 and a phenobarbital blood level of 24.3. The patient on discharge was feeding well and neurologically was awake, alert and moving all extremities. By discharge there was no recurrence of the patient's right conjugating gaze nor any further seizure activity. The patient was discharged in good condition.

DISCHARGE INSTRUCTIONS: The patient was discharged on phenobarbital 10 mg p.o. b.i.d. The patient was to follow-up with private physician, Dr. [REDACTED], on the day following discharge. The patient was also to follow with Dr. [REDACTED] in neurology in one month and Dr. [REDACTED] from neurosurgery in one month with a preclinic CT scan of the head.

PHYSICIAN:

[REDACTED], M.D.

cc: [REDACTED], M.D.  
[REDACTED]

D: [REDACTED] 95; T: [REDACTED] 24;

[REDACTED]  
RADIOLOGY CONSULTATION

Physician:

Date: [REDACTED]-95 11:59

SKULL ROUTINE /ED/TC EXAM

The examination demonstrates multiple skull fractures involving the right parietal bone in the mid portion, left parietal bone more posteriorly. There is also a suggestion of a fracture in the occipital region but this is only partially visualized. Correlation with computed tomography would be helpful. Definite depression is not noted.

D&T: 16:54//[REDACTED]-95, 19:13

DIAGNOSTIC IMAGING CONSULTATION

Physician:

RADIOLOGY CONSULTATION

Date: [REDACTED]-95 12:00

CHEST PA AND LAT /ED/TC EXAM

The examination shows the heart and vascular to be normal. The lung fields are clear. There is diffuse air and loss of muscle mass throughout. The thalamus is identified. No consolidations are noted.

D&T: 16:53//[REDACTED]-95, 19:15

[REDACTED]  
CT IMAGING CONSULTATION

Physician:

Date: [REDACTED]-95 12:40

CT ABDOMEN WITH IV CONTRAST

Axial 5 mm scans were obtained through the abdomen following intravenous contrast. The prior outside studies are unavailable for comparison.

The lung bases are clear. The liver, spleen, pancreas and kidneys show normal enhancement and attenuation characteristics. No focal lesions are identified. The bowel is unremarkable as seen. No large fluid collections are identified that would suggest intra-abdominal or retroperitoneal hemorrhage.

D&T: 13:36//[REDACTED]-95, 17:30

125A

[REDACTED]  
CT IMAGING CONSULTATION

Physician:

Date: [REDACTED]-95 08:59

CT HEAD WITHOUT IV CONTRAST

Multiple axial 5 mm. images were obtained through the brain and comparison is made to an outside study from [REDACTED] Hospital of [REDACTED] done on [REDACTED]/95. Again noted is acute subdural hemorrhage along the left cerebral convexity which extends around posteriorly and along the falx. There is also acute subdural hemorrhage along the tentorium and the right posterior falx. A minimal amount of subarachnoid blood is identified superiorly within sulci of the high parietal lobes bilaterally. There is also a small area of subarachnoid hemorrhage within the interpeduncular cistern. In addition, there is acute hemorrhage within the occipital horn of the right lateral ventricle. These findings are all more apparent than on the prior study but are thought to be stable. There is no evidence of mass effect or midline shift. The ventricles and subarachnoid cisterns are stable in appearance. Again noted is a stellate appearing skull fracture involving the left high parietal region.

IMPRESSION:

Acute subdural, subarachnoid, and interventricular hemorrhage as discussed above which is more apparent than on the prior outside CT scan but is thought to be stable.

D&T: 1252/1437/[REDACTED]-95, 15:17

DIAGNOSTIC IMAGING CONSULTATION

Physician:

CT IMAGING CONSULTATION

Date: [REDACTED]-95 12:47

CT HEAD WITHOUT IV CONTRAST

Comparison is made with prior exams dated [REDACTED] and [REDACTED] from 1995.

FINDINGS:

Further resolving of the bifrontal subdural hematoma. No evidence of hydrocephalus, new parenchymal bleeding or mass effect identified.

IMPRESSION:

Further resolution of the subdural hematoma when compared with the prior examination of [REDACTED] 1995.

D&T: 11:04/[REDACTED]-95, 17:27

PATIENT:

MR:

DOB:

AGE: 7 weeks

VISIT #:

EEG #:

DATE: [REDACTED] /95

REFERRING PHYSICIAN:

TYPE OF STUDY: Inpatient Routine

, M.D.

(*disch.*)

## ELECTROENCEPHALOGRAM REPORT

**CLINICAL HISTORY:** The patient is a 7-week-old status post motor vehicle accident, with a history of left and right parietal skull fracture.

**MEDICATIONS:** Phenobarbital, Dilantin.

**SEDATION:** None.

**RECORDING DATA:** A 21-channel electroencephalogram was performed in the Clinical Neurophysiology Laboratory. The International 10-20 system of electrode placement was used, and both bipolar and referential electrode montages were monitored. The patient was recorded during the awake and sleep states, as well as during the activation procedure of photic stimulation.

**RESULTS:** During the awake state with the eyes closed, the background activity consists of a 3-4 Hz theta rhythm, having an amplitude of 40-70 microvolts which attenuates appropriately with eye opening. Beta activity consists of a 20-25 Hz frequency, having an amplitude of 15 microvolts which is distributed diffusely with anterior voltage predominance. With eye opening, the background activity changes to a slightly lower voltage mixture of theta, beta, and delta range frequencies. There is mild asymmetry of the background activity with superimposed slowing seen over the left posterior quadrant as compared to the right.

With drowsiness there is waxing and waning of the posterior rhythm with eventual replacement by a mixture of theta, beta and delta activity. As the patient enters stage II of sleep, there is activation of epileptiform activity with sharp waves and occasional spike wave discharges seen over the right posterior quadrant having phase reversal at electrodes P4, P8 and O2. The epileptiform activity is not associated with a clinical accompaniment.

**PHOTIC STIMULATION:** Photic stimulation using a step-wise increase in photic frequency varying from 1-30 Hz results in bilateral driving responses from 1-10 Hz. There is no activation of epileptiform activity.

**INTERPRETATION:** This electroencephalogram is abnormal during the awake and sleep states due to the presence of mild asymmetry of background rhythms with superimposed slowing seen predominantly over the left posterior quadrant. With the onset of drowsiness and sleep, there is activation of epileptiform activity over the right parietal occipital region. The

PATIENT:

MR:

DOB:

AGE: 7 weeks

VISIT #:

EEG #:

DATE: [REDACTED]/[REDACTED]/95

REFERRING PHYSICIAN: [REDACTED], M.D.

TYPE OF STUDY: Inpatient Routine

epileptiform activity is not associated with a clinical accompaniment. It suggests the presence of a lower threshold for seizures and the potential for seizures of focal onset. The asymmetry of the background with superimposed slowing seen over the left suggests the presence of underlying disruption of cortical activity that may be seen with an insulating lesion such as the subdural hematoma described. Further clinical and/or radiologic correlation is therefore recommended.

\_\_\_\_\_  
PHYSICIAN:

\_\_\_\_\_, M.D.

cc:

[REDACTED], M.D.

D: [REDACTED] 95; T: [REDACTED] 95;

DISCHARGE  
OUTPATIENT RECORDPATIENT DATE/TIME  
[REDACTED] / 95 / 3:58 P:

LOCATION ER/OP	PATIENT NAME [REDACTED]	SEX R	DATE OF BIRTH [REDACTED]	MEDICAL RECORD NO. [REDACTED]
VISIT NUMBER [REDACTED]	DATE ADMITTED [REDACTED] / 95	DATE DISCHARGED [REDACTED]	PHYSICIAN [REDACTED]	

\*\*\*\*\* HEMOSTASIS \*\*\*\*\*

## HEMOSTASIS

.....Prothrombin Time.....		...Partial Thrombo Time...		
Pat	1:1 Mix	INR	Pat	1:1 Mix
Normals:	10.8-12.7	10.8-12.7	21.8-34.0	21.8-34.0
Units:	sec	sec	sec	sec

Date Time:

(1) 1.19 RESULT VALID ONLY ON COUMADINIZED PATIENTS

\*\*\*\*\* CHEMISTRY \*\*\*\*\*

## CAPILLARY BLOOD GASES

	pH	PCO2	PO2	HC03	Total CO2	Base Excess	O2 Saturation
Normals:	7.35-7.45	35-45	40-70	19-25	19-29	mEq/L	90-95
Units:		mmHg	mmHg	mEq/L	mEq/L	mEq/L	%

Date Time:

[REDACTED] 1300 \* 7.30 L 40.7 39.3 L (19.6) 20.9 (-5.7) 72.2 L

## CHEMISTRY I

	NA	K	Cl	CO2	Anion Gap	Glucose	Acetone
Normals:	135-145	3.5-5.0	98-108	19.0-33.0	9-18		NEG
Units:	mEq/L	mEq/L	mEq/L	mEq/L		mg/dl	

Date Time:

[REDACTED] 1300 \* 135 (1) 105 19.7 15  
(1) 5.0 NOT HEMOLYZED

## ENZYMES

	AST	ALT	LDH	Alk Phos	Gamma GT
Normals:	23-65	3-45	425-975	110-320	15-85
Units:	IU/L	IU/L	IU/L	IU/L	IU/L

Date Time:

[REDACTED] 1100 \* 48 38

\*\*\* Continued \*\*\*

PERMANENT RECORD DO NOT DISCARD

## PRE TRANSFUSION BEDSIDE VERIFICATION

## UNITED TRANSFUSION SERVICE

WE CERTIFY BEFORE STARTING THIS TRANSFUSION THAT:

THE PATIENT'S NAME, MEDICAL RECORD NUMBER, AND BLOOD BANK BAND NUMBER (WHEN APPLICABLE) ON THE PATIENT'S WRISTBAND MATCHES THE CORRESPONDING INFORMATION ON THE DONOR UNIT TAG AND THIS CERTIFICATION RECORD,

THE DONOR UNIT NUMBER AND ABO AND RH ON THE DONOR UNIT LABEL AND DONOR UNIT TAG MATCH THE CORRESPONDING INFORMATION ON THIS CERTIFICATION RECORD,

THE DONOR UNIT PRODUCT NAME ON THE DONOR UNIT LABEL MATCHES THE CORRESPONDING (ABBREVIATED) FULL PRODUCT NAME ON THIS FORM,





THE DONOR AND PATIENT BLOOD ABO AND RH TYPES ARE COMPATIBLE, AND

THE DONOR UNIT IS NOT OUTDATED.



1995

## DO NOT TRANSFUSE IF THERE IS ANY DISCREPANCY


CHECKED AND ADMINISTERED BY:

1.      
D.O. D.O.  
M.D. M.D.

☐ OPERATING ROOM

DATE STARTED:  95 TIME STARTED: 0115  P.M.

BLOOD WARMER USED? ☒ NO ☐ YES

DATE COMPLETED:  95 TIME COMPLETED: 0515 A.M.  
P.M.

AMOUNT TRANSFUSED: ☐ ALL ☒ PART 100 ML  
ESTIMATE

REACTION SUSPECTED? (SIGNS AND SYMPTOMS OF A TRANSFUSION REACTION MAY INCLUDE CHILLS, FEVER, LUMBAR PAIN, FLUSHING, DYSPNEA, TIGHTNESS IN CHEST, NAUSEA - VOMITING, INCREASED PULSE, HYPOTENSION, HYPERTENSION, OOZING, CARDIAC ARRHYTHMIA, URTICARIA, NON-URTICARIAL RASH, JAUNDICE.)

☒ NO

☐ YES - PERFORM THE FOLLOWING:

1. STOP THE TRANSFUSION.
2. KEEP THE LINE OPEN WITH SALINE.
3. IMMEDIATELY VERIFY IDENTIFICATION OF UNIT & PATIENT.
4. NOTIFY PATIENT'S PHYSICIAN.
5. MONITOR VITAL SIGNS - URINE OUTPUT.
6. FOR M.C.M.C. AND F.M.L.H. TRANSFUSION REACTIONS NOTIFY UNITED TRANSFUSION SERVICE AT M.C.M.C. 257-6321. FOR C.H.W. TRANSFUSION REACTIONS NOTIFY C.H.W. BLOOD BANK AT EXT. 2119.
7. COMPLETE TRANSFUSION REACTION FORM AND FOLLOW STATED GUIDELINES.

ANTIBODY PRESENT:

UNIT ANTIGEN NEGATIVE FOR:

DATE  TIME  DATE  TIME  AM  
PM



# PROGRESS NOT SEIZURE CLINIC

DATE: 4/5		HOME PHONE: [REDACTED]		WORK PHONE: [REDACTED]		PARENT/GUARDIAN: [REDACTED]	
HEIGHT: 5'3" cm		WEIGHT: 25 lb		OFC: 99.6 cm		Menses Yes No N/A	
SEIZURE TYPE / CLASSIFICATION		FREQUENCY		DURATION		POST ICTAL	
1.							
2.							
3.							
New seizure Date last seizure: NSKE since hospitalization						Drug change since last visit? <input type="checkbox"/> Yes <input type="checkbox"/> No	
MEDS / AED'S		TYPE		DOSAGE SCHEDULE		DOSE mg/kg/day	
1. ABACBITOL		20mg/5ml		10mg mg mg 10mg		6 30-7	
2.				mg mg mg mg			
3.				mg mg mg mg			
4.				mg mg mg mg			
OTHER MEDICATIONS: pediatric pen						Exam	
RN COMMENTS: FUP SP MVA in hospital 2 days for 2 h, subdural hematoma. Seen by Dr. [REDACTED] - last visit per mom - Dr. [REDACTED] stated "I find no progression when compared to CT in 4/9/92"							
MD COMMENTS:							
EEG: Lab Results:							
SEIZURE							
GENERALIZED				PARTIAL		<input type="checkbox"/> OTHER	
<input type="checkbox"/> T/C				<input type="checkbox"/> Simple			
<input type="checkbox"/> Atonic				<input type="checkbox"/> Complex			
<input type="checkbox"/> Absence				<input type="checkbox"/> 2nd Gen			
<input type="checkbox"/> Atypical/Absence							
<input type="checkbox"/> Myoclonic							
Plan:							
Next Visit Date: [REDACTED] <input type="checkbox"/> OVER							
REFERRING M.D.				SIGNATURES			
Name: [REDACTED]				Neurologist: [REDACTED]			
Address: [REDACTED]				Resident: [REDACTED]			
[REDACTED] WF [REDACTED]				RN: [REDACTED]			
Phone: [REDACTED]				OTHER: [REDACTED]			

**MEDICAL RECORDS**  
**FROM**  
**FOLLOW-UP PHYSICIAN VISITS**

DATE, PROBLEM NO., TITLE | FINDINGS (SUBJECTIVE, OBJECTIVE, ANALYSIS, PLANS)

11.95

Wt. 9# 10oz      Head Circumference  
 Flu      H 39.5 TP!      Meds  
                  Hosp.      Phenobarb 10mg  
 H & H 11/6      10.8      { Hemoglobin BID  
                  31.9      { Hematocrit  
 NT OK & off in hosp.

95

S: He is a 7-week-old here for follow-up of his skull fracture. He was seen here in the ER on 11.95 because of bilateral skull fracture, subdural hematoma and right frontal cortical hemorrhage sustained secondary to an MVA. Transferred to Hospital and stayed there for about a week. He had a right conjugate gaze on presentation in the ER and the following day had a seizure in the ICU. He was placed on Phenobarb which he is still taking, 10 mg b.i.d. They also did a spinal tap which showed subarachnoid hemorrhage. His hemoglobin was 8.5 from a newborn hemoglobin of 15. He received one blood transfusion. He was sent home yesterday and has appointments with neuro and neurosurgery in a month. He is doing fine according to the mom with an H&H yesterday of 10.8 and 31.9. The mother noted a facial rash this morning.

O: Alert, active, happy looking. HEENT, normocephalic. Fontanel is soft with a head circumference at the 50th percentile. TM x2 normal. Pupils equal and reactive to light with full EOM. Nose and throat not congested. Neck supple. No adenopathy. Lungs clear. Heart, normal sinus rhythm, no murmur. Abdomen soft. No palpable mass. Extremities, no deformities. CNS, he is able to move all extremities symmetrically, although there is a mild decrease in tone of the right upper extremity on passive movement. Suck is good with no facial asymmetry. Reflexes are good. Skin showed a fine papular rash, slightly erythematous on the face and upper chest.

Cont'd

PEDIATRIC

CLINIC,  
PROGRESS NOTE

DATE, PROBLEM NO., TITLE	FINDINGS (SUBJECTIVE, OBJECTIVE, ANALYSIS, PLANS)
--------------------------	---

95  
cont'd.

A: Status post hospitalization for bilateral skull fracture, subdural hematoma and cortical and subarachnoid hemorrhage. The patient is recuperating. Skin rash, nonspecific.

P: Continue Phenobarbital. May use Hydrocortisone 1% to rash 2-3 times a day. Will give immunizations today with OPV and Hepatitis B #2. Will hold off on Tetramune until CNS status is stable. Return in one month.

MD/

95  
Length  
Legs 23 1/2 in  
WB: 11 # 1/2 g  
N.C. 39 cm

Follow-up MVA. going to  
on [redacted] for CT scan

CPA

95

S: [redacted] is here for follow up. Child had multiple skull fractures subdural, dural and parenchymal bleeding following a motor vehicle accident. He was admitted to [redacted] Hospital in [redacted] for observation and treatment. He did have one transfusion for anemia. On phenobarbital 30 mg. b.i.d. because of a transient other seizure while at [redacted] Hospital. He had a follow up appointment with a neurosurgeon and a neurologist at [redacted] Hospital this week.

O: Happy, healthy looking infant, good color. ENT normal. Scalp normal. No signs of swelling noted. Neck supple. Heart normal. Chest clear. Abdomen negative.

A: Child is status post multiple head injury following motor vehicle accident.

P: Advised to follow up with the neurosurgeon and neurologist.  
, M.D./

**Appendix M:**

**NASS CDS OCCUPANT ASSESSMENT FORM:**

**VEHICLE #2 DRIVER**



## OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number 10  
2. Case Number - Stratum 9521  
3. Vehicle Number 02  
4. Occupant Number 01

### OCCUPANT'S CHARACTERISTICS

5. Occupant's Age 72  
Code actual age at time of accident.  
(00) Less than one year old (specify by month):  
(97) 97 years and older  
(99) Unknown
6. Occupant's Sex 1  
(1) Male  
(2) Female-not reported pregnant  
(3) Female-pregnant-1st trimester(1st-3rd month)  
(4) Female-pregnant-2nd trimester(4th-6th month)  
(5) Female-pregnant-3rd trimester(7th-9th month)  
(6) Female-pregnant-term unknown  
(9) Unknown
7. Occupant's Height 163  
Code actual height to the nearest  
centimeter.  
(999) Unknown  
64 inches X 2.54 = 162<sup>56</sup> centimeters
8. Occupant's Weight 079  
Code actual weight to the nearest  
kilogram.  
(999) Unknown  
175 pounds X .4536 = 79<sup>38</sup> kilograms
9. Occupant's Role 1  
(1) Driver  
(2) Passenger  
(9) Unknown

### OCCUPANT'S SEATING

10. Occupant's Seat Position 11  
*Front Seat*  
(11) Left side  
(12) Middle  
(13) Right side  
(14) Other (specify):  
(15) On or in the lap of another occupant
- Second Seat*  
(21) Left side  
(22) Middle  
(23) Right side  
(24) Other (specify):  
(25) On or in the lap of another occupant
- Third Seat*  
(31) Left side  
(32) Middle  
(33) Right side  
(34) Other (specify):  
(35) On or in the lap of another occupant
- Fourth Seat*  
(41) Left side  
(42) Middle  
(43) Right side  
(44) Other (specify):  
(45) On or in the lap of another occupant
- (97) In or on unenclosed area  
(98) Other seat (specify):  
(99) Unknown
11. Occupant's Posture 0  
(0) Normal posture
- Abnormal posture*  
(1) Kneeling or standing on seat  
(2) Lying on or across seat  
(3) Kneeling, standing or sitting in front of seat  
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window  
(5) Sitting on a console  
(6) Lying back in a reclined seat position  
(7) Bracing with feet or hands on a surface in front of seat  
(8) Other abnormal posture (specify):  
(9) Unknown

## EJECTION/ENTRAPMENT

## 12. Ejection

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

0

## 13. Ejection Area

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

0

## 14. Ejection Medium

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_

- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_

- (9) Unknown

0

## 15. Medium Status (Immediately Prior To Impact)

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

0

## 16. Entrapment

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_

- (9) Unknown

0

## 17. Occupant Mobility

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

3

## BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify): \_\_\_\_\_

(9) Unknown

19. Manual (Active) Belt System Use 04

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): \_\_\_\_\_

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify): \_\_\_\_\_

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify): \_\_\_\_\_
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 1

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of manual belt system (specify): \_\_\_\_\_

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident 1

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_
- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other manual belt failure (specify): \_\_\_\_\_
- (9) Unknown

22. Shoulder Belt Upper Anchorage Adjustment 1

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

*Adjustable shoulder Belt Upper Anchorage*

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): \_\_\_\_\_
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_

(8) Other improper use of automatic belt system (specify): \_\_\_\_\_

(9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_
- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other automatic belt failure (specify): \_\_\_\_\_
- (9) Unknown



POLICE REPORTED RESTRAINT USE	AIR BAG SYSTEM FUNCTION
<p>28. Police Reported Belt Use <span style="float: right;">4</span></p> <p>(0) None used</p> <p>(1) Police did not indicate belt use</p> <p>(2) Shoulder belt</p> <p>(3) Lap belt</p> <p>(4) Lap and shoulder belt</p> <p>(5) Belt used, type not specified</p> <p>(6) Child safety seat</p> <p>(7) Automatic belt</p> <p>(8) Other type belt, (specify): _____</p> <p>(9) Police indicated "unknown" _____</p> <p>29. Police Reported Air Bag Availability/Function <span style="float: right;">0</span></p> <p>(0) No air bag available</p> <p>(1) Police did not indicate air bag availability/function</p> <p>(2) Deployed</p> <p>(3) Not deployed</p> <p>(4) Unknown if deployed</p> <p>(9) Police indicated "unknown"</p>	<p>30. Frontal Air Bag System Availability/Function (This Occupant Position) <span style="float: right;">0</span></p> <p>(0) Not equipped/not available</p> <p>(1) Air bag</p> <p><i>Non-functional</i></p> <p>(2) Air bag disconnected (specify): _____</p> <p>(3) Air bag not reinstalled</p> <p>(9) Unknown</p> <p>31. Frontal Air Bag System Deployment (This Occupant Position) <span style="float: right;">0</span></p> <p>(0) Not equipped/not available</p> <p>(1) Deployed during accident (as a result of impact)</p> <p>(2) Deployed inadvertently just prior to accident</p> <p>(3) Deployed, details unknown</p> <p>(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)</p> <p>(5) Unknown if deployed</p> <p>(7) Nondeployed</p> <p>(9) Unknown</p>
<p>Check the Primary Source Used In Determining Belt Use.</p> <p>[ ] Not equipped/not available/destroyed or rendered inoperative</p> <p><input checked="" type="checkbox"/> Vehicle inspection</p> <p>[ ] Official injury data</p> <p>[ ] Driver/occupant interview</p> <p>[ ] Other (specify): _____</p> <p>[ ] Unknown if belt used</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) <span style="float: right;">0</span></p> <p>(0) Not equipped/not available</p> <p>(1) Air bag</p> <p><i>Non-functional</i></p> <p>(2) Air bag disconnected (specify): _____</p> <p>(3) Air bag not reinstalled</p> <p>(9) Unknown</p> <p><i>Specify type of "other" air bag present:</i></p> <p>_____</p> <p>33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) <span style="float: right;">0</span></p> <p>(0) Not equipped with an "other" air bag</p> <p>(1) Deployed during accident (as a result of impact)</p> <p>(2) Deployed inadvertently just prior to accident</p> <p>(3) Deployed, details unknown</p> <p>(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)</p> <p>(5) Unknown if deployed</p> <p>(7) Nondeployed</p> <p>(9) Unknown</p> <p>34. Are There Indications of Air Bag System Failure? (This Occupant Position) <span style="float: right;">0</span></p> <p>(0) Not equipped/not available</p> <p>(1) No</p> <p>(2) Yes (specify): _____</p> <p>(9) Unknown</p>

## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 0

(0) Not equipped/not available

(1) No previous accidents

Yes

(2) Previous accident(s) without deployment(s)

(3) One previous accident with deployment

(4) More than one previous accident with at least one deployment

(8) Previous accidents, unknown deployment status

(9) Unknown

36. Type of Air Bag 0

(0) Not equipped/not available

(1) Original manufacturer installed system

(2) Retrofitted air bag

(3) Replacement air bag

(8) Unknown type of air bag

(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 0

(0) Not equipped/not available

(1) No prior maintenance

(2) Yes, prior maintenance (specify): \_\_\_\_\_

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 00

(00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment

(96) Deployed, unknown event

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

39. CDC For Air Bag Deployment Impact 0

(0) Not equipped/not available

(1) Highest delta V

(2) Second highest delta V

(3) Other non-coded delta V (specify): \_\_\_\_\_

(6) Deployed, unknown event

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

40. Longitudinal Component of +

Delta V For Air Bag

Deployment Impact - 000

(\_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(\_996) Deployment, unknown longitudinal Delta V

(\_997) Not deployed

(\_998) Unknown if deployed

(\_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 0

(0) Not equipped/not available

(1) No

(2) Yes

(3) Deployed, unknown if flap(s) opened at designated tear points

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 0

(0) Not equipped/not available

(1) No

(2) Yes (specify): \_\_\_\_\_

(3) Deployed, unknown if air bag module cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

43. Was There Damage To The Air Bag? 00

(00) Not equipped/not available

(01) Not damaged

Yes - Air Bag Damage

(02) Ruptured

(03) Cut

(04) Torn

(05) Holed

(06) Burned

(07) Abraded

(88) Other damage (specify): \_\_\_\_\_

(95) Damaged, details unknown

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION** *continued*

44. Source of Air Bag Damage 00
- (00) Not equipped/not available  
(01) Not damaged  
(02) Object worn by occupant, (specify): \_\_\_\_\_  
(03) Object carried by occupant, (specify): \_\_\_\_\_  
(04) Adaptive/assistive controls, (specify): \_\_\_\_\_  
(05) Fire in vehicle  
(06) Thermal burns  
(07) Rescue or emergency efforts  
(88) Other damage source (specify): \_\_\_\_\_  
(95) Damaged, unknown source  
(96) Deployed, unknown if damaged  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown
45. Was The Air Bag Tethered? 0
- (0) Not equipped/not available  
(1) No  
(2) Yes (specify number of tether straps): \_\_\_\_\_  
(3) Deployed, unknown if tethered  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown
46. Did The Air Bag Have Vent Ports? 0
- (0) Not equipped/not available  
(1) No  
(2) Yes (specify number of vent ports): \_\_\_\_\_  
(3) Deployed, unknown if vent ports present  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 0
- (0) Not equipped/not available  
(1) No  
(2) Yes (specify): \_\_\_\_\_  
(3) Deployed, unknown if other occupant contact to air bag  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown
48. Was This Occupant Wearing Eye-wear? 0
- (0) Not equipped/not available  
(1) No  
(2) Eyeglasses/sunglasses  
(3) Contact lenses  
(4) Deployed, unknown if eyewear worn  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

**HEAD RESTRAINT AND SEAT EVALUATION**

49. Head Restraint Type/Damage by Occupant at This Occupant Position 3
- (0) No head restraints  
(1) Integral—no damage  
(2) Integral—damaged during accident  
(3) Adjustable—no damage  
(4) Adjustable—damaged during accident  
(5) Add-on—no damage  
(6) Add-on—damaged during accident  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown
50. Seat Type (this Occupant Position) 06
- (00) Occupant not seated or no seat  
(01) Bucket  
(02) Bucket with folding back  
(03) Bench  
(04) Bench with separate back cushions  
(05) Bench with folding back(s)  
(06) Split bench with separate back cushions  
(07) Split bench with folding back(s)  
(08) Pedestal (i.e., column supported)  
(09) Box mounted seat (i.e., van type)  
(10) Other seat type (specify): \_\_\_\_\_  
(99) Unknown
51. Seat Orientation (this Occupant Position) 1
- (0) Occupant not seated or no seat  
(1) Forward facing seat  
(2) Rear facing seat  
(3) Side facing seat (inward)  
(4) Side facing seat (outward)  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown
52. Seat Track Adjusted Position Prior To Impact 2
- (0) Occupant not seated or no seat  
(1) Non-adjustable seat track
- Adjustable Seat Track*
- (2) Seat at forward most track position  
(3) Seat between forward most and middle track positions  
(4) Seat at middle track position  
(5) Seat between middle and rear most track positions  
(6) Seat at rear most track position  
(9) Unknown

**HEAD RESTRAINT AND SEAT EVALUATION** *continued***53. Seat Back Incline Prior and Post Impact** 14

- (00) Occupant not seated or no seat  
 (01) Not adjustable

*Upright prior to impact*

- (11) Moved to completely rearward position  
 (12) Moved to rearward midrange position  
 (13) Moved to slightly rearward position  
 (14) Retained pre-impact position  
 (15) Moved to slightly forward position  
 (16) Moved to forward midrange position  
 (17) Moved to completely forward position

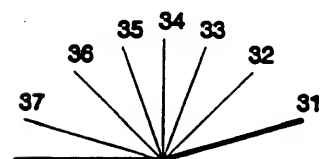
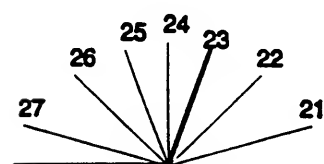
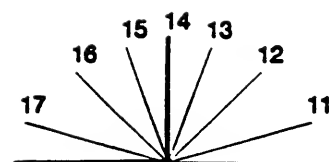
*Slightly reclined prior to impact*

- (21) Moved to completely rearward position  
 (22) Moved to rearward midrange position  
 (23) Retained pre-impact position  
 (24) Moved to upright position  
 (25) Moved to slightly forward position  
 (26) Moved to forward midrange position  
 (27) Moved to completely forward position

*Completely reclined prior to impact*

- (31) Retained pre-impact position  
 (32) Moved to rearward midrange position  
 (33) Moved to slightly rearward position  
 (34) Moved to upright position  
 (35) Moved to slightly forward position  
 (36) Moved to forward midrange position  
 (37) Moved to completely forward position

(99) Unknown

**54. Seat Performance (this Occupant Position)** 1

- (0) Occupant not seated or no seat  
 (1) No seat performance failure(s)  
 (2) Seat adjusters failed  
 (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_  
 (4) Seat track/anchors failed  
 (5) Deformed by impact of occupant  
 (6) Deformed by passenger compartment intrusion, (specify): \_\_\_\_\_  
 (7) Combination of above (specify): \_\_\_\_\_  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 000

(000) No child safety seat

Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):  
\_\_\_\_\_

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat 0

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):  
\_\_\_\_\_

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation 00

(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):  
\_\_\_\_\_

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):  
\_\_\_\_\_

(19) Unknown orientation

*Unknown Design or Orientation For This  
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):  
\_\_\_\_\_

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 0059. Child Safety Seat Shield Usage 0060. Child Safety Seat Tether Usage 00Note: Options below applicable to  
Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*(01) After market harness/shield/tether  
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market  
harness/shield/tether added(09) Unknown if harness/shield/tether  
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES****61. Injury Severity (Police Rating)**2

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

**62. Treatment - Mortality**4

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):  
\_\_\_\_\_
- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

**63. Type Of Medical Facility (for Initial Treatment)**2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_
- (9) Unknown

**64. Hospital Stay**00

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

**65. Working Days Lost**97

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident.
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP WORK HERE****VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES****TRAUMA DATA**

66. Time to Death 00  
 \_\_\_\_\_ Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)  
 (00) Not fatal  
 (96) Fatal - ruled disease  
 (99) Unknown
67. 1st Medically Reported Cause of Death 00
68. 2nd Medically Reported Cause of Death 00
69. 3rd Medically Reported Cause of Death 00  
 \_\_\_\_\_ Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death  
 (00) Not fatal or no additional causes  
 (96) Mode of death given but specific injuries are not linked to cause of death. (specify): \_\_\_\_\_  
 (97) Other result (includes fatal ruled disease) (specify): \_\_\_\_\_  
 (99) Unknown
70. Number of Recorded Injuries for This Occupant 06  
 \_\_\_\_\_ Code the actual number of injuries recorded for this occupant.  
 (00) No recorded injuries  
 (97) Injured, details unknown  
 (99) Unknown if injured

71. Glasgow Coma Scale (GCS) Score 02  
 (at Medical Facility)  
 (00) Not injured  
 (01) Injured - not treated at medical facility  
 (02) No GCS Score at medical facility.  
 (03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
 (97) Injured, details unknown  
 (99) Unknown if injured
72. Was the Occupant Given Blood? 1  
 (1) No - blood not given  
 (2) Yes - blood given  
 (specify units): \_\_\_\_\_  
 (9) Unknown if blood given
73. Arterial Blood Gases (ABG) - HCO<sub>3</sub> 01  
 (00) Not injured  
 (01) Injured, ABGs not measured or reported  
 (02-50) Code the actual value of the HCO<sub>3</sub>  
 (96) ABGs reported, HCO<sub>3</sub> unknown  
 (97) Injured, details unknown  
 (99) Unknown if injured

**BELT USE DETERMINATION**

74. Primary Source of Belt Use Determination 1  
 (0) Not equipped/not available/destroyed or rendered inoperative  
 (1) Vehicle inspection  
 (2) Official injury data  
 (3) Driver/occupant interview  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown if belt used

**Appendix N:**

**NASS CDS OCCUPANT INJURY FORM:**

**VEHICLE #2 DRIVER**





U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## OCCUPANT INJURY FORM

Form Approved  
O.M.B. No. 2127-0021  
NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

10

3. Vehicle Number

02

2. Case Number - Stratum

9521

4. Occupant Number

01

### INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

A.I.S. - 90

Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/Indirect Injury	Occupant Area Intrusion Number
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Laceration  
mid forehead

5.	7	6.	2	7.	9	8.	06	9.	00	10.	1	11.	7	12.	004	13.	3	14.	1	15.	00
----	---	----	---	----	---	----	----	----	----	-----	---	-----	---	-----	-----	-----	---	-----	---	-----	----

Fractured  
Tooth

16.	7	17.	2	18.	5	19.	14	20.	04	21.	1	22.	8	23.	005	24.	3	25.	1	26.	00
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Contusion  
Upper arm

27.	7	28.	7	29.	9	30.	04	31.	02	32.	1	33.	2	34.	058	35.	1	36.	1	37.	00
-----	---	-----	---	-----	---	-----	----	-----	----	-----	---	-----	---	-----	-----	-----	---	-----	---	-----	----

Abrasion  
Knee

38.	7	39.	8	40.	9	41.	02	42.	02	43.	1	44.	1	45.	007	46.	1	47.	1	48.	00
-----	---	-----	---	-----	---	-----	----	-----	----	-----	---	-----	---	-----	-----	-----	---	-----	---	-----	----

Contusion  
Knee

49.	7	50.	8	51.	9	52.	04	53.	02	54.	1	55.	1	56.	007	57.	1	58.	1	59.	00
-----	---	-----	---	-----	---	-----	----	-----	----	-----	---	-----	---	-----	-----	-----	---	-----	---	-----	----

Contusion  
Ankle

60.	7	61.	8	62.	9	63.	04	64.	02	65.	1	66.	1	67.	254	68.	2	69.	1	70.	00
-----	---	-----	---	-----	---	-----	----	-----	----	-----	---	-----	---	-----	-----	-----	---	-----	---	-----	----

7th	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

8th	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.
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9th	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.
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10th	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.
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# **OCCUPANT INJURY DATA**

Source of Injury Data	A.I.S. - 90						Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect				
11th	—	—	—	—	—	—	—	—	—	—
12th	—	—	—	—	—	—	—	—	—	—
13th	—	—	—	—	—	—	—	—	—	—
14th	—	—	—	—	—	—	—	—	—	—
15th	—	—	—	—	—	—	—	—	—	—
16th	—	—	—	—	—	—	—	—	—	—
17th	—	—	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—	—	—
24th	—	—	—	—	—	—	—	—	—	—
25th	—	—	—	—	—	—	—	—	—	—

**OCCUPANT INJURY CLASSIFICATION**

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.  To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(1) Right
(2) Face			(2) Left
(3) Neck			(3) Bilateral
(4) Thorax			(4) Central
(5) Abdomen			(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified			(9) Unknown
			(0) Whole region
<b>Type of Anatomic Structure</b>	<b>Whole Area</b>		
(1) Whole Area	(02) Skin - Abrasion	<b>Abbreviated Injury Scale</b>  (1) Minor Injury (2) Moderate Injury (3) Serious Injury (4) Severe Injury (5) Critical Injury (6) Maximum (untreatable) (7) Injured, unknown severity	
(2) Vessels	(04) Skin - Contusion		
(3) Nerves	(06) Skin - Laceration		
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion		
(5) Skeletal (includes joints)	(10) Amputation		
(6) Head - LOC	(20) Burn		
(9) Skin	(30) Crush		
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<b>Head - LOC</b>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<b>Spine</b>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

**SOURCE OF INJURY DATA****INJURY SOURCE****DIRECT/INDIRECT INJURY****CONFIDENCE LEVEL****OFFICIAL RECORDS**

- (1) Autopsy records with or without hospital/medical records
- (2) Hospital/medical records other than emergency room (e.g., discharge summary)
- (3) Emergency room records only (including associated X-rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

**UNOFFICIAL RECORDS**

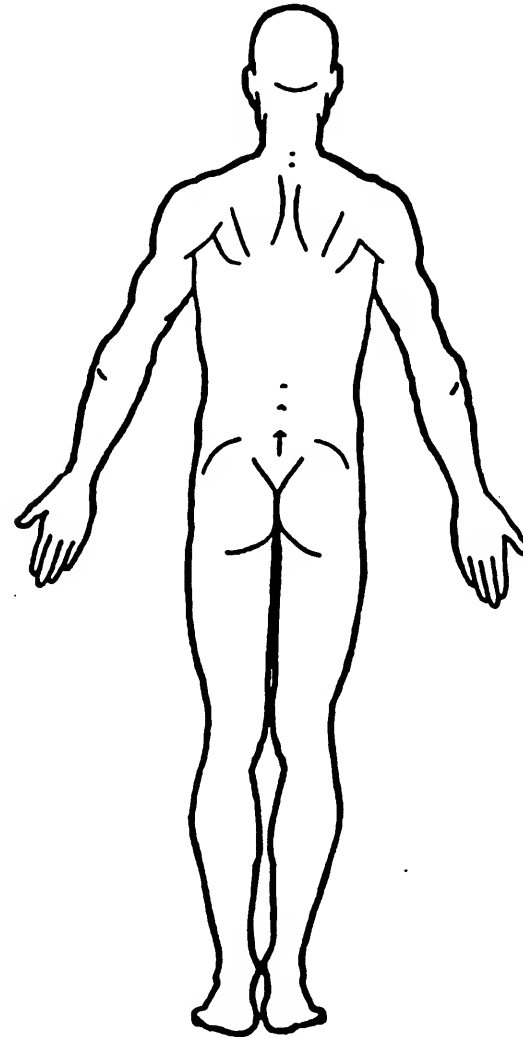
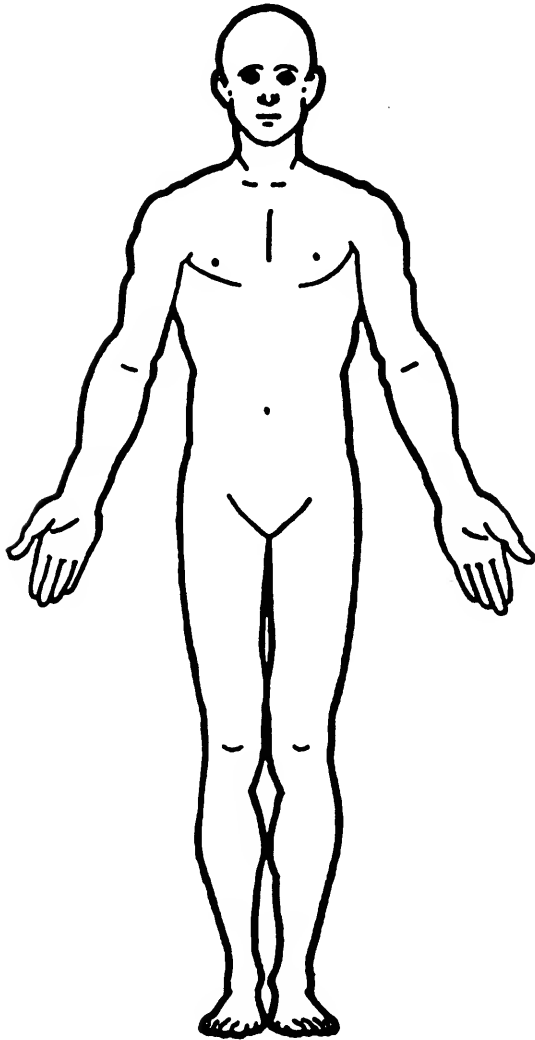
- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify): \_\_\_\_\_
- (9) Police

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

\_\_\_ No

\_\_\_ Yes

Blood Alcohol  
Level (mg/dl)

BAL = \_\_\_

Glasgow Coma  
Scale Score

GCSS = \_\_\_

Units of Blood  
Given

Units = \_\_\_

Arterial Blood  
Gases

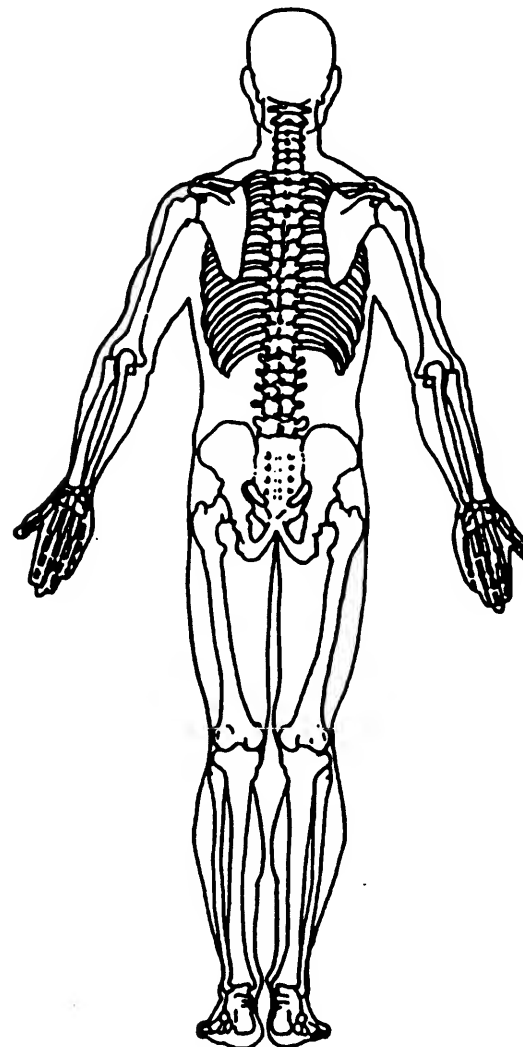
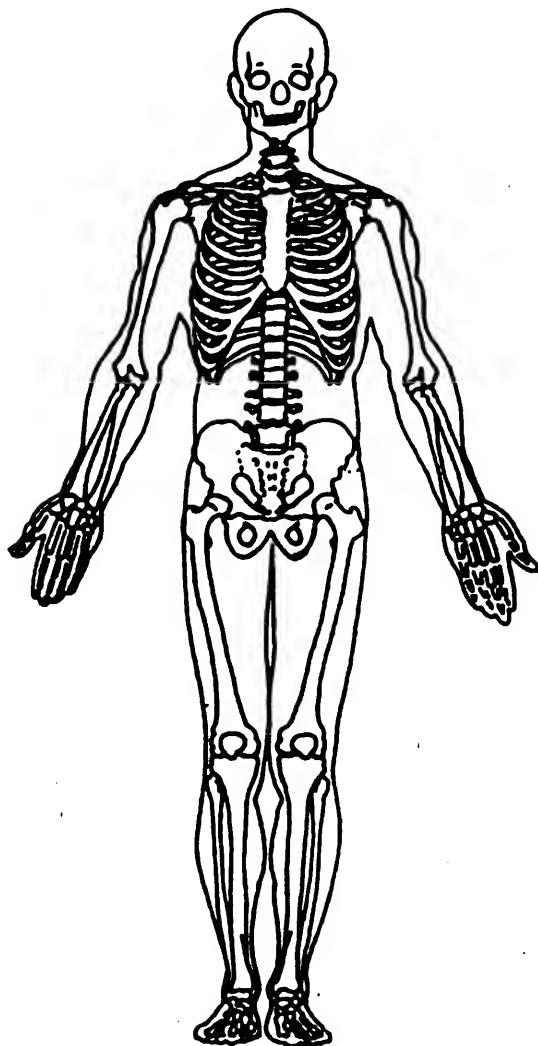
pH = \_\_\_

PO<sub>2</sub> = \_\_\_

PCO<sub>2</sub> = \_\_\_

HCO<sub>3</sub> = \_\_\_

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OK

## INJURY SOURCES

## FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify):
- (019) Other front object (specify):

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify):
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify):

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify):
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify):

## INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify):
- (155) Head restraint system
- (160) Other occupants (specify):
- (161) Interior loose objects
- (162) Child safety seat (specify):
- (163) Other interior object (specify):

## AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify):
- (195) Other air bag compartment cover (specify):

## ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top
- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify):

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify):
- (409) Additional or relocated switches, (specify):
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify):

## EXTERIOR OF OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify):
- (454) Unknown exterior objects

## EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify):
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify):
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify):
- (514) Unknown exterior of other motor vehicle

## OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

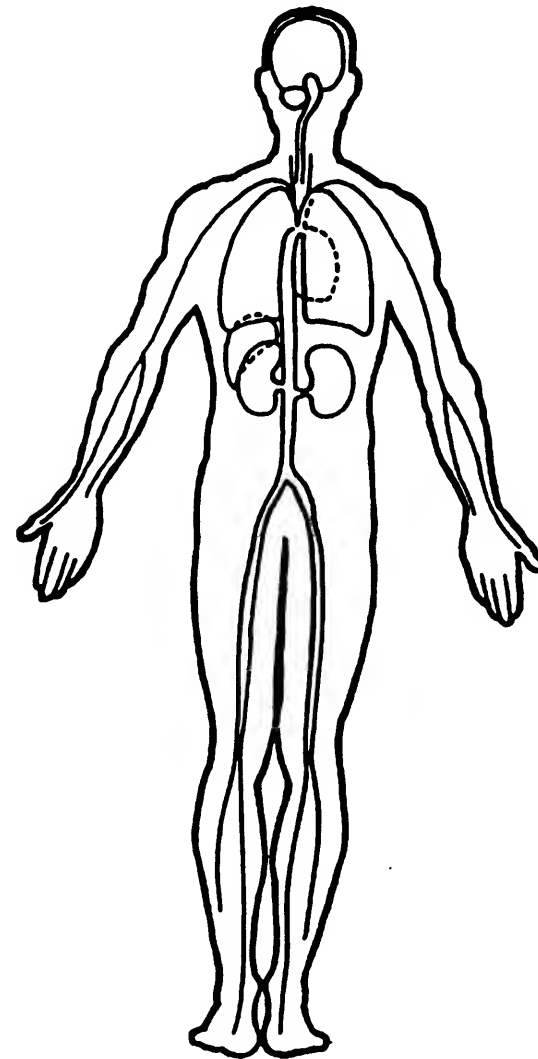
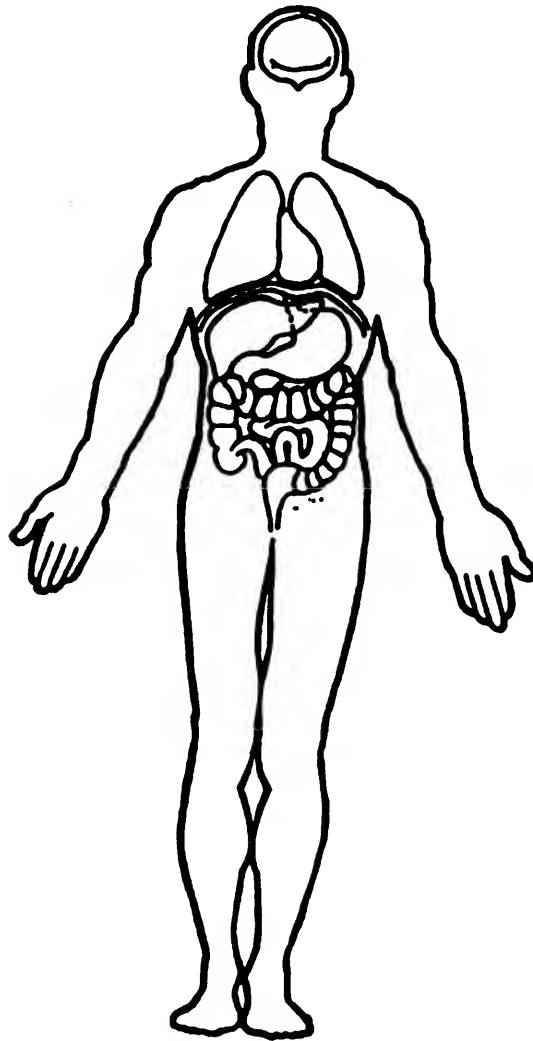
- (551) Ground
- (598) Other vehicle or object (specify):
- (599) Unknown vehicle or object

## NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify):
- (604) Air bag exhaust gases
- (697) Injured, unknown source

## OFFICIAL INJURY DATA —INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## CAUSE OF DEATH

## ICD-9-CM

## OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input type="checkbox"/> Unspecified		

## MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
FN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)



**Appendix O:**

**NASS CDS OCCUPANT ASSESSMENT FORM:**

**VEHICLE #2 RIGHT FRONT PASSENGER**



## OCCUPANT ASSESSMENT FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

### OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

Code actual height to the nearest centimeter.

(999) Unknown

67 inches X 2.54 = 170<sup>18</sup> centimeters

8. Occupant's Weight

Code actual weight to the nearest kilogram.

(999) Unknown

140 pounds X .4536 = 63<sup>5</sup> kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

### OCCUPANT'S SEATING

10. Occupant's Seat Position

*Front Seat*

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

*Second Seat*

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

*Third Seat*

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

*Fourth Seat*

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

*Abnormal posture*

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with another occupant or to look out a rear window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in front of seat

(8) Other abnormal posture (specify):

(9) Unknown

**EJECTION/ENTRAPMENT****12. Ejection**

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

0**13. Ejection Area**

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

0**14. Ejection Medium**

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

0**15. Medium Status (Immediately Prior To Impact)**

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

0**16. Entrapment**

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

0**17. Occupant Mobility**

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or disoriented
- (2) Removed from vehicle due to injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (9) Unknown

3

## BELT SYSTEM FUNCTION

<p>18. Manual (Active) Belt System Availability <u>4</u></p> <p>(0) None available</p> <p>(1) Belt removed/destroyed</p> <p>(2) Shoulder belt</p> <p>(3) Lap belt</p> <p>(4) Lap and shoulder belt</p> <p>(5) Belt available—type unknown</p> <p><i>Integral Belt Partially Destroyed</i></p> <p>(6) Shoulder belt (lap belt destroyed/removed)</p> <p>(7) Lap belt (shoulder belt destroyed/removed)</p> <p>(8) Other belt (specify): _____</p> <p>(9) Unknown</p> <p>19. Manual (Active) Belt System Use <u>04</u></p> <p>(00) None used, not available, or belt removed/destroyed</p> <p>(01) Inoperative (specify): _____</p> <p>(02) Shoulder belt</p> <p>(03) Lap belt</p> <p>(04) Lap and shoulder belt</p> <p>(05) Belt used—type unknown</p> <p>(08) Other belt used (specify): _____</p> <p>(12) Shoulder belt used with child safety seat</p> <p>(13) Lap belt used with child safety seat</p> <p>(14) Lap and shoulder belt used with child safety seat</p> <p>(15) Belt used with child safety seat—type unknown</p> <p>(18) Other belt used with child safety seat (specify): _____</p> <p>(99) Unknown if belt used</p> <p>20. Proper Use of Manual (Active) Belts <u>1</u></p> <p>(0) None used or not available</p> <p>(1) Belt used properly</p> <p>(2) Belt used properly with child safety seat</p> <p><i>Belt Used Improperly</i></p> <p>(3) Shoulder belt worn under arm</p> <p>(4) Shoulder belt worn behind back or seat</p> <p>(5) Belt worn around more than one person</p> <p>(6) Lap belt worn on abdomen</p> <p>(7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of manual belt system (specify): _____</p> <p>(9) Unknown</p> <p>21. Manual (Active) Belt Failure Modes <u>1</u></p> <p>During Accident</p> <p>(0) No manual belt used or not available</p> <p>(1) No manual belt failure(s)</p> <p>(2) Torn webbing (stretched webbing not included)</p> <p>(3) Broken buckle or latchplate</p> <p>(4) Upper anchorage separated</p> <p>(5) Other anchorage separated (specify): _____</p> <p>(6) Broken retractor</p> <p>(7) Combination of above (specify): _____</p> <p>(8) Other manual belt failure (specify): _____</p> <p>(9) Unknown</p>	<p>22. Shoulder Belt Upper Anchorage Adjustment <u>1</u></p> <p>(0) No shoulder belt</p> <p>(1) No upper anchorage adjustment for shoulder belt</p> <p><i>Adjustable shoulder Belt Upper Anchorage</i></p> <p>(2) In full up position</p> <p>(3) In mid position</p> <p>(4) In full down position</p> <p>(5) Position unknown</p> <p>(9) Unknown if position has adjustable upper anchorage adjustment</p> <p>23. Automatic (Passive) Belt System Availability/Function <u>0</u></p> <p>(0) Not equipped/not available</p> <p>(1) 2 point automatic belts</p> <p>(2) 3 point automatic belts</p> <p>(3) Automatic belts - type unknown</p> <p><i>Non-functional</i></p> <p>(4) Automatic belts destroyed or rendered inoperative</p> <p>(9) Unknown</p> <p>24. Automatic (Passive) Belt System Use <u>0</u></p> <p>(0) Not equipped/not available/destroyed or rendered inoperative</p> <p>(1) Automatic belt in use</p> <p>(2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____</p> <p>(3) Automatic belt use unknown</p> <p>(9) Unknown</p> <p>25. Automatic (Passive) Belt System Type <u>0</u></p> <p>(0) Not equipped/not available</p> <p>(1) Non-motorized system</p> <p>(2) Motorized system</p> <p>(9) Unknown</p> <p>26. Proper Use of Automatic (Passive) Belt System <u>0</u></p> <p>(0) Not equipped/not available/not used</p> <p>(1) Automatic belt used properly</p> <p>(2) Automatic belt used properly with child safety seat</p> <p><i>Automatic Belt Used Improperly</i></p> <p>(3) Automatic shoulder belt worn under arm</p> <p>(4) Automatic shoulder belt worn behind back</p> <p>(5) Automatic belt worn around more than one person</p> <p>(6) Lap portion of automatic belt worn on abdomen</p> <p>(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____</p> <p>(8) Other improper use of automatic belt system (specify): _____</p> <p>(9) Unknown</p> <p>27. Automatic (Passive) Belt Failure Modes <u>0</u></p> <p>During Accident</p> <p>(0) Not equipped/not available/not in use</p> <p>(1) No automatic belt failure(s)</p> <p>(2) Torn webbing (stretched webbing not included)</p> <p>(3) Broken buckle or latchplate</p> <p>(4) Upper anchorage separated</p> <p>(5) Other anchorage separated (specify): _____</p> <p>(6) Broken retractor</p> <p>(7) Combination of above (specify): _____</p> <p>(8) Other automatic belt failure (specify): _____</p> <p>(9) Unknown</p>
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## POLICE REPORTED RESTRAINT USE

## AIR BAG SYSTEM FUNCTION

## 28. Police Reported Belt Use

- (0) None used  
 (1) Police did not indicate belt use  
 (2) Shoulder belt  
 (3) Lap belt  
 (4) Lap and shoulder belt  
 (5) Belt used, type not specified  
 (6) Child safety seat  
 (7) Automatic belt  
 (8) Other type belt, (specify):

(9) Police indicated "unknown"

## 29. Police Reported Air Bag Availability/Function

- (0) No air bag available  
 (1) Police did not indicate air bag availability/function  
 (2) Deployed  
 (3) Not deployed  
 (4) Unknown if deployed  
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [ ] Not equipped/not available/destroyed or rendered inoperative  
☒ Vehicle inspection  
 [ ] Official injury data  
 [ ] Driver/occupant interview  
 [ ] Other (specify):

[ ] Unknown if belt used

## 30. Frontal Air Bag System Availability/Function (This Occupant Position)

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify):

- (3) Air bag not reinstalled  
 (9) Unknown

## 31. Frontal Air Bag System Deployment (This Occupant Position)

- (0) Not equipped/not available  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

## 32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position)

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify):

- (3) Air bag not reinstalled  
 (9) Unknown

*Specify type of "other" air bag present:*

## 33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)

- (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

## 34. Are There Indications of Air Bag System Failure? (This Occupant Position)

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):

(9) Unknown

## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 0

- (0) Not equipped/not available  
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)  
(3) One previous accident with deployment  
(4) More than one previous accident with at least one deployment  
(8) Previous accidents, unknown deployment status  
(9) Unknown

36. Type of Air Bag 0

- (0) Not equipped/not available  
(1) Original manufacturer installed system  
(2) Retrofitted air bag  
(3) Replacement air bag  
(8) Unknown type of air bag  
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 0

- (0) Not equipped/not available  
(1) No prior maintenance  
(2) Yes, prior maintenance (specify):  
\_\_\_\_\_  
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 00

- (00) Not equipped/not available  
\_\_\_\_\_  
Code the accident event sequence number that initiated the air bag deployment  
(96) Deployed, unknown event  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

39. CDC For Air Bag Deployment Impact 0

- (0) Not equipped/not available  
(1) Highest delta V  
(2) Second highest delta V  
(3) Other non-coded delta V (specify):  
\_\_\_\_\_  
(6) Deployed, unknown event  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

40. Longitudinal Component of +Delta V For Air Bag  
Deployment Impact

(- 000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(- 996) Deployment, unknown longitudinal Delta V

(- 997) Not deployed

(- 998) Unknown if deployed

(- 999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 0

- (0) Not equipped/not available  
(1) No  
(2) Yes  
(3) Deployed, unknown if flap(s) opened at designated tear points  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 0

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
(3) Deployed, unknown if air bag module cover flap(s) damaged  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

43. Was There Damage To The Air Bag? 00

- (00) Not equipped/not available  
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured  
(03) Cut  
(04) Torn  
(05) Holed  
(06) Burned  
(07) Abraded  
(88) Other damage (specify):  
\_\_\_\_\_

- (95) Damaged, details unknown  
(96) Deployed, unknown if damaged  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION** *continued***HEAD RESTRAINT AND SEAT EVALUATION**44. Source of Air Bag Damage 00

- (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):

(03) Object carried by occupant, (specify):

(04) Adaptive/assistive controls, (specify):

- (05) Fire in vehicle  
 (06) Thermal burns  
 (07) Rescue or emergency efforts  
 (88) Other damage source (specify):

- (95) Damaged, unknown source  
 (96) Deployed, unknown if damaged  
 (97) Not deployed  
 (98) Unknown if deployed  
 (99) Unknown

45. Was The Air Bag Tethered? 0

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of tether straps):

- (3) Deployed, unknown if tethered  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

46. Did The Air Bag Have Vent Ports? 0

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of vent ports):

- (3) Deployed, unknown if vent ports present  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 0

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):

- (3) Deployed, unknown if other occupant contact to air bag  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

48. Was This Occupant Wearing Eye-wear? 0

- (0) Not equipped/not available  
 (1) No  
 (2) Eyeglasses/sunglasses  
 (3) Contact lenses  
 (4) Deployed, unknown if eyewear worn  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

49. Head Restraint Type/Damage by Occupant at This Occupant Position 3

- (0) No head restraints  
 (1) Integral—no damage  
 (2) Integral—damaged during accident  
 (3) Adjustable—no damage  
 (4) Adjustable—damaged during accident  
 (5) Add-on—no damage  
 (6) Add-on—damaged during accident  
 (8) Other (specify):

(9) Unknown

50. Seat Type (this Occupant Position) 06

- (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Box mounted seat (i.e., van type)  
 (10) Other seat type (specify):

(99) Unknown

51. Seat Orientation (this Occupant Position) 1

- (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):

(9) Unknown

52. Seat Track Adjusted Position Prior To Impact 3

- (0) Occupant not seated or no seat  
 (1) Non-adjustable seat track

**Adjustable Seat Track**

- (2) Seat at forward most track position  
 (3) Seat between forward most and middle track positions  
 (4) Seat at middle track position  
 (5) Seat between middle and rear most track positions  
 (6) Seat at rear most track position  
 (9) Unknown

**HEAD RESTRAINT AND SEAT EVALUATION** *continued***53. Seat Back Incline Prior and Post Impact** 14

(00) Occupant not seated or no seat

(01) Not adjustable

*Upright prior to impact*

(11) Moved to completely rearward position

(12) Moved to rearward midrange position

(13) Moved to slightly rearward position

(14) Retained pre-impact position

(15) Moved to slightly forward position

(16) Moved to forward midrange position

(17) Moved to completely forward position

*Slightly reclined prior to impact*

(21) Moved to completely rearward position

(22) Moved to rearward midrange position

(23) Retained pre-impact position

(24) Moved to upright position

(25) Moved to slightly forward position

(26) Moved to forward midrange position

(27) Moved to completely forward position

*Completely reclined prior to impact*

(31) Retained pre-impact position

(32) Moved to rearward midrange position

(33) Moved to slightly rearward position

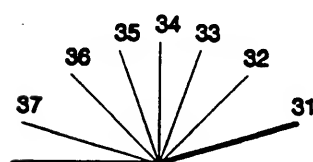
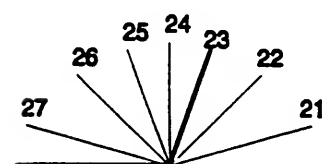
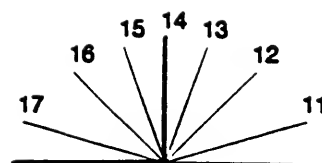
(34) Moved to upright position

(35) Moved to slightly forward position

(36) Moved to forward midrange position

(37) Moved to completely forward position

(99) Unknown

**54. Seat Performance (this Occupant Position)** 1

(0) Occupant not seated or no seat

(1) No seat performance failure(s)

(2) Seat adjusters failed

(3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_

(4) Seat track/anchors failed

(5) Deformed by impact of occupant

(6) Deformed by passenger compartment intrusion, (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown



## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 000

(000) No child safety seat

Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):  
\_\_\_\_\_

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat 0

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):  
\_\_\_\_\_

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation 00

(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):  
\_\_\_\_\_

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):  
\_\_\_\_\_

(19) Unknown orientation

*Unknown Design or Orientation For This  
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):  
\_\_\_\_\_

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 0059. Child Safety Seat Shield Usage 0060. Child Safety Seat Tether Usage 00Note: Options below applicable to  
Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*(01) After market harness/shield/tether  
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market  
harness/shield/tether added(09) Unknown if harness/shield/tether  
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES****61. Injury Severity (Police Rating)** 2

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

**62. Treatment - Mortality** 4

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):  
\_\_\_\_\_
- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

**63. Type Of Medical Facility (for Initial Treatment)** 2

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_

(9) Unknown

**64. Hospital Stay** 00

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

**65. Working Days Lost** 00

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP WORK HERE****VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES****TRAUMA DATA**66. Time to Death 00

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal  
(96) Fatal - ruled disease  
(99) Unknown

67. 1st Medically Reported Cause of Death 0068. 2nd Medically Reported Cause of Death 0069. 3rd Medically Reported Cause of Death 00

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes  
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

(97) Other result (includes fatal ruled disease) (specify):

(99) Unknown

70. Number of Recorded Injuries for This Occupant 02

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries  
(97) Injured, details unknown  
(99) Unknown if injured

71. Glasgow Coma Scale (GCS) Score (at Medical Facility) 02

- (00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured

72. Was the Occupant Given Blood? 1

- (1) No - blood not given  
(2) Yes - blood given  
(specify units):  
(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO<sub>3</sub> 01

- (00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the HCO<sub>3</sub>  
(96) ABGs reported, HCO<sub>3</sub> unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**74. Primary Source of Belt Use Determination 1

- (0) Not equipped/not available/destroyed or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify):  
(9) Unknown if belt used

**Appendix P:**

**NASS CDS OCCUPANT INJURY FORM:**

**VEHICLE #2 RIGHT FRONT PASSENGER**



U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

## OCCUPANT INJURY FORM

Form Approved  
O.M.B. No. 2127-0021  
NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	<u>10</u>	3. Vehicle Number	<u>02</u>
2. Case Number - Stratum	<u>9521</u>	4. Occupant Number	<u>02</u>

### INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

Source of Injury Data	A.I.S. - 90						Injury Source	Injury Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number	
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect					
Contusion bridge 1st of nose	5. <u>7</u>	6. <u>2</u>	7. <u>9</u>	8. <u>04</u>	9. <u>02</u>	10. <u>1</u>	11. <u>4</u>	12. <u>160</u>	13. <u>3</u>	14. <u>1</u>	15. <u>00</u>
Laceration 2nd on bridge of nose	16. <u>7</u>	17. <u>2</u>	18. <u>9</u>	19. <u>06</u>	20. <u>00</u>	21. <u>1</u>	22. <u>4</u>	23. <u>160</u>	24. <u>3</u>	25. <u>1</u>	26. <u>00</u>
3rd	27. <u>  </u>	28. <u>  </u>	29. <u>  </u>	30. <u>  </u>	31. <u>  </u>	32. <u>  </u>	33. <u>  </u>	34. <u>  </u>	35. <u>  </u>	36. <u>  </u>	37. <u>  </u>
4th	38. <u>  </u>	39. <u>  </u>	40. <u>  </u>	41. <u>  </u>	42. <u>  </u>	43. <u>  </u>	44. <u>  </u>	45. <u>  </u>	46. <u>  </u>	47. <u>  </u>	48. <u>  </u>
5th	49. <u>  </u>	50. <u>  </u>	51. <u>  </u>	52. <u>  </u>	53. <u>  </u>	54. <u>  </u>	55. <u>  </u>	56. <u>  </u>	57. <u>  </u>	58. <u>  </u>	59. <u>  </u>
6th	60. <u>  </u>	61. <u>  </u>	62. <u>  </u>	63. <u>  </u>	64. <u>  </u>	65. <u>  </u>	66. <u>  </u>	67. <u>  </u>	68. <u>  </u>	69. <u>  </u>	70. <u>  </u>
7th	71. <u>  </u>	72. <u>  </u>	73. <u>  </u>	74. <u>  </u>	75. <u>  </u>	76. <u>  </u>	77. <u>  </u>	78. <u>  </u>	79. <u>  </u>	80. <u>  </u>	81. <u>  </u>
8th	82. <u>  </u>	83. <u>  </u>	84. <u>  </u>	85. <u>  </u>	86. <u>  </u>	87. <u>  </u>	88. <u>  </u>	89. <u>  </u>	90. <u>  </u>	91. <u>  </u>	92. <u>  </u>
9th	93. <u>  </u>	94. <u>  </u>	95. <u>  </u>	96. <u>  </u>	97. <u>  </u>	98. <u>  </u>	99. <u>  </u>	100. <u>  </u>	101. <u>  </u>	102. <u>  </u>	103. <u>  </u>
10th	104. <u>  </u>	105. <u>  </u>	106. <u>  </u>	107. <u>  </u>	108. <u>  </u>	109. <u>  </u>	110. <u>  </u>	111. <u>  </u>	112. <u>  </u>	113. <u>  </u>	114. <u>  </u>

# OCCUPANT INJURY DATA

Source of Injury Data	A.I.S. - 90				Injury Source	Injury Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury				
11th	—	—	—	—	—	—	—	—
12th	—	—	—	—	—	—	—	—
13th	—	—	—	—	—	—	—	—
14th	—	—	—	—	—	—	—	—
15th	—	—	—	—	—	—	—	—
16th	—	—	—	—	—	—	—	—
17th	—	—	—	—	—	—	—	—
18th	—	—	—	—	—	—	—	—
19th	—	—	—	—	—	—	—	—
20th	—	—	—	—	—	—	—	—
21st	—	—	—	—	—	—	—	—
22nd	—	—	—	—	—	—	—	—
23rd	—	—	—	—	—	—	—	—
24th	—	—	—	—	—	—	—	—
25th	—	—	—	—	—	—	—	—

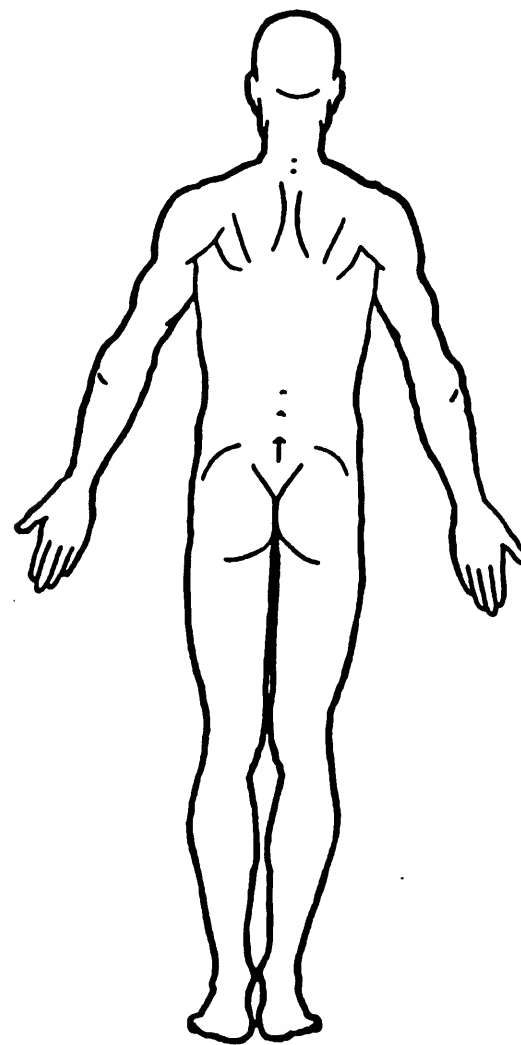
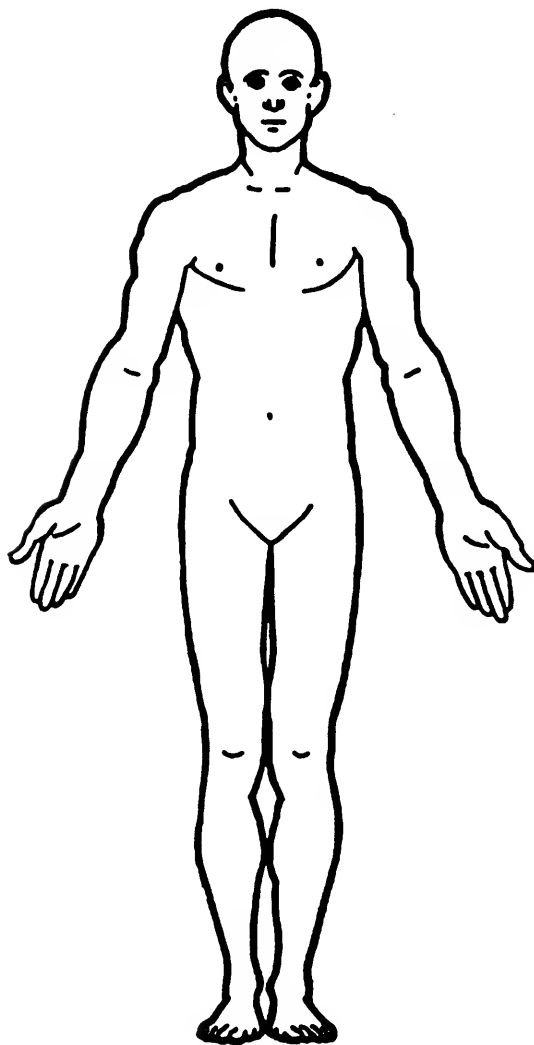
**OCCUPANT INJURY CLASSIFICATION**

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>		(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(4) Central
(5) Abdomen		To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.	(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified	The exceptions to this rule apply to:		(9) Unknown
			(0) Whole region
Type of Anatomic Structure	Whole Area	Abbreviated Injury Scale	
(1) Whole Area	(02) Skin - Abrasion	(1) Minor Injury	
(2) Vessels	(04) Skin - Contusion	(2) Moderate Injury	
(3) Nerves	(06) Skin - Laceration	(3) Serious Injury	
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion	(4) Severe Injury	
(5) Skeletal (includes joints)	(10) Amputation	(5) Critical Injury	
(6) Head - LOC	(20) Burn	(6) Maximum (untreatable)	
(9) Skin	(30) Crush	(7) Injured, unknown severity	
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

SOURCE OF INJURY DATA	INJURY SOURCE CONFIDENCE LEVEL	DIRECT/INDIRECT INJURY
<u>OFFICIAL RECORDS</u> (1) Autopsy records with or without hospital/medical records (2) Hospital/medical records other than emergency room (e.g., discharge summary) (3) Emergency room records only (including associated X-rays or other lab reports) (4) Private physician, walk-in or emergency clinic  <u>UNOFFICIAL RECORDS</u> (5) Lay coroner report (6) E.M.S. personnel (7) Interviewee (8) Other source (specify): _____ (9) Police	(1) Certain (2) Probable (3) Possible (9) Unknown	(1) Direct contact injury (2) Indirect contact injury (3) Noncontact injury (7) Injured, unknown source

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





## OFFICIAL INJURY DATA — SKELETAL INJURIES

Restrained?

\_\_\_ No

\_\_\_ Yes

Blood Alcohol  
Level (mg/dl)

BAL = \_\_\_

Glasgow Coma  
Scale Score

GCSS = \_\_\_

Units of Blood  
Given

Units = \_\_\_

Arterial Blood  
Gases

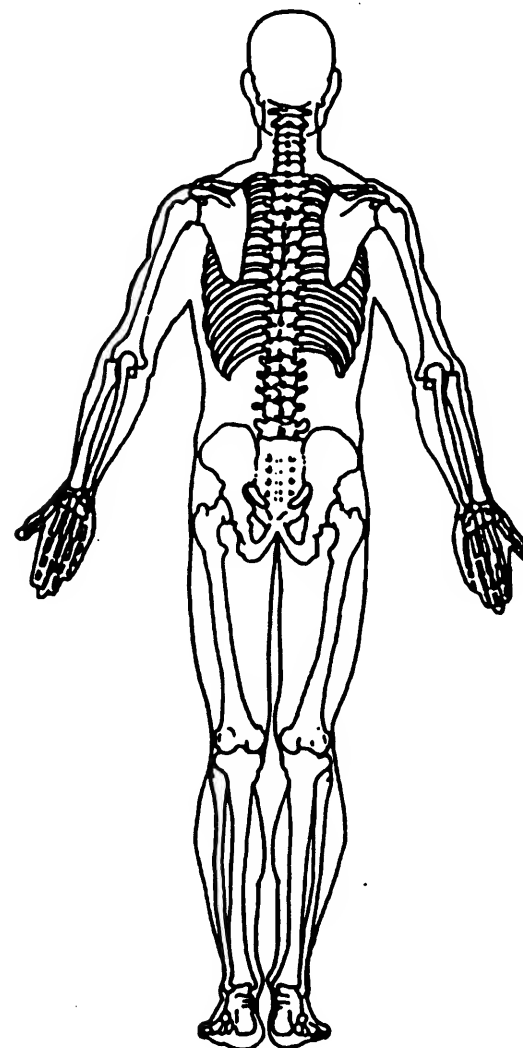
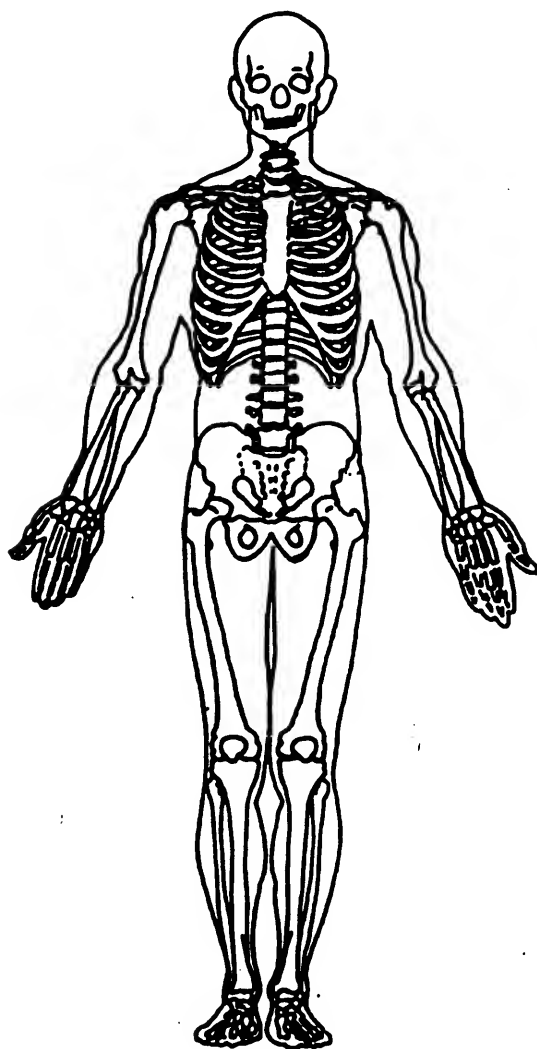
pH = \_\_\_

PO<sub>2</sub> = \_\_\_

PCO<sub>2</sub> = \_\_\_

HCO<sub>3</sub> = \_\_\_

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## INJURY SOURCES

## FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify):
- (019) Other front object (specify):

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify):
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify):

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify):
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify):

## INTERIOR

- (151) Seat, back support
- (152) Belt restraint wabbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify):
- (155) Head restraint system
- (160) Other occupants (specify):
- Driver*
- (161) Interior loose objects
- (162) Child safety seat (specify):
- (163) Other interior object (specify):

## AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify):
- (195) Other air bag compartment cover (specify):

## ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify):

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify):
- (409) Additional or relocated switches, (specify):
- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify):

## EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware i.e. g., outside mirror, antennal
- (453) Other exterior surface or tires (specify):
- (454) Unknown exterior objects

## EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify):
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify):
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify):
- (514) Unknown exterior of other motor vehicle

## OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

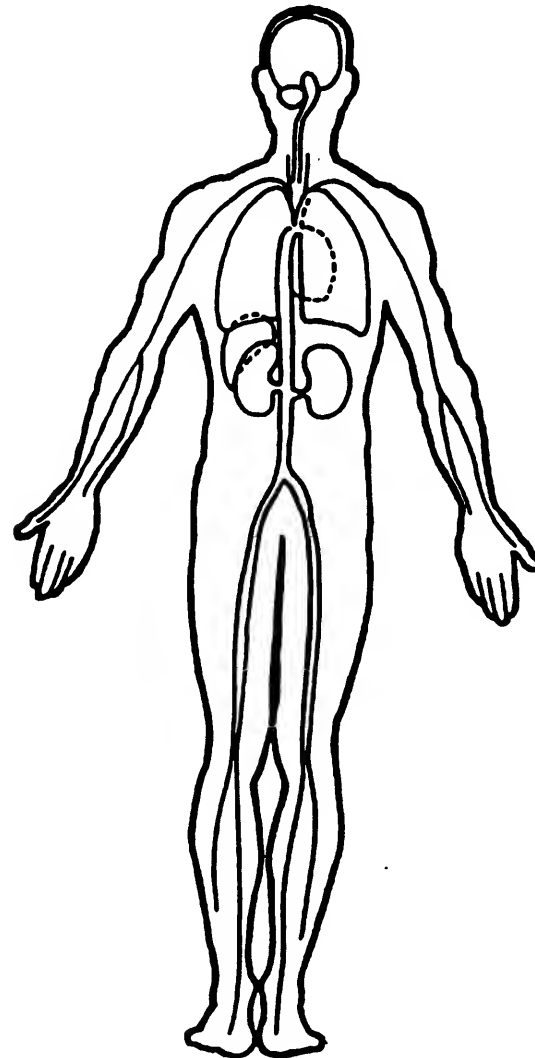
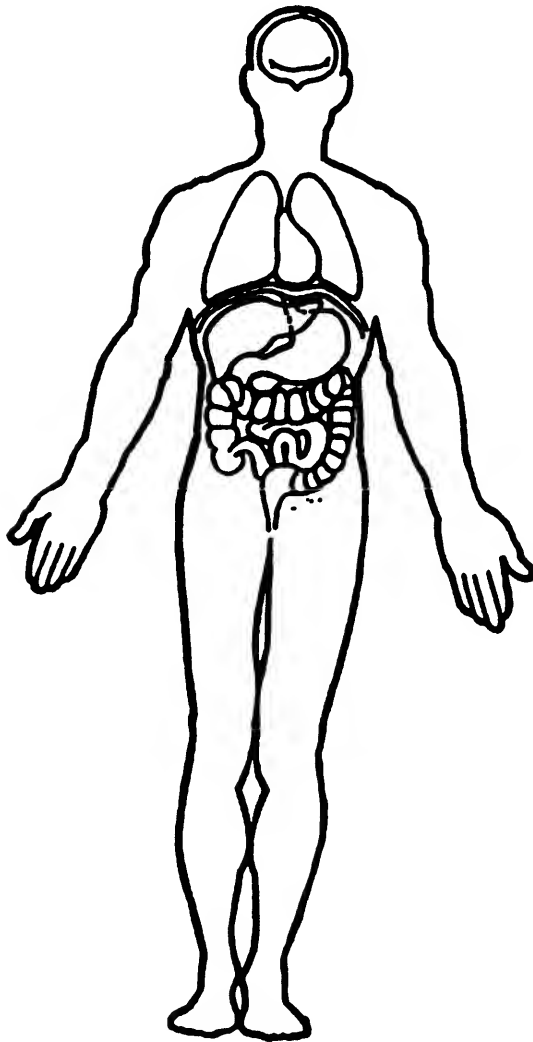
- (551) Ground
- (598) Other vehicle or object (specify):
- (599) Unknown vehicle or object

## NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify):
- (604) Air bag exhaust gases
- (697) Injured, unknown source

## OFFICIAL INJURY DATA — INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## CAUSE OF DEATH

## ICD-9-CM

## OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
<input type="checkbox"/> Blood and urine tests <input type="checkbox"/> Blood test only <input type="checkbox"/> Urine test only <input type="checkbox"/> Other test <input type="checkbox"/> Unspecified		

## MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy—medical information based upon an invasive examination of a body
ME	Medical examiner's record—where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary—any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet—face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary—shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record—summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
FX	Radiographic records—taken after the patient has been admitted, or while in surgery or intensive care
FN	Patient progress notes—supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam—medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record—consultations are in essence additional history and physical exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report—where the author of this information is undefined
EN	Emergency room nurse—"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor—"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes—supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records—taken during the patients stay in the emergency room
CV	Coroner's verdict—statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report—medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician—report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source—medical information based on an other source (e.g., newspaper, DVM—Doctor of Veterinary Medicine)

**TRANSPORTATION RESEARCH CENTER**

Indiana University  
Bloomington, Indiana 47403-1599

**ON-SITE AIR BAG INVESTIGATION**

**SELECTED PHOTOGRAPHS**

CASE NO. - 95-21

FLEET - LEASED VEHICLE

LOCATION [REDACTED], WISCONSIN

ACCIDENT DATE - [REDACTED] 1995

A total of seventy-six color copies of photographs are presented and referenced as Photograph #01 through Photograph #76. All of these photographs were taken by the Transportation Research Center.

[REDACTED] 1996

Contract Number: DTNH22-94-D-17058

Prepared for:

U.S. Department of Transportation  
National Highway Traffic Safety Administration  
National Center for Statistics and Analysis  
Washington, D.C. 20590



# 01 -- Case Vehicle's northward travel path in northbound lane approximately 50 meters (164 feet) south of impact



# 02 -- Case vehicle's northward travel path in northbound lane approximately 30 meters (98 feet) south of impact





# 03 -- Case Vehicle's northward travel path in northbound lane approximately 20 meters (66 feet) south of impact



# 04 -- Case Vehicle's northward travel path in northbound lane approximately 5 meters (16 feet) south of impact



# 05 -- Southward view of Case Vehicle's northward travel path in the northbound lane, north of impact area in intersection



# 06 -- Vehicle #2's westward travel path in westbound lane approximately 50 meters (164 feet) east of impact





# 07 -- Vehicle #2's westward travel path in westbound lane approximately 30 meters (98 feet) east of impact



# 08 -- Vehicle #2's westward travel path in westbound lane approximately 20 meters (66 feet) east of impact



# 09 -- Vehicle #2's westward travel path in westbound lane approximately 5 meters (16 feet) east of impact



# 10 -- Eastward view of Vehicle #2's westward travel path in the westbound lane, west of impact area in intersection





# 11 -- Case Vehicle's damaged front viewed from 30 degrees right of front; NOTE: vehicle in process of being repaired



# 12 -- Case Vehicle's damaged front viewed from 30 degrees left of front; NOTE: damage primarily to front left corner





# 13 -- Damage to Case vehicle's removed hood viewed from front showing that direct damage is primarily to left half; NOTE: photo is sideways

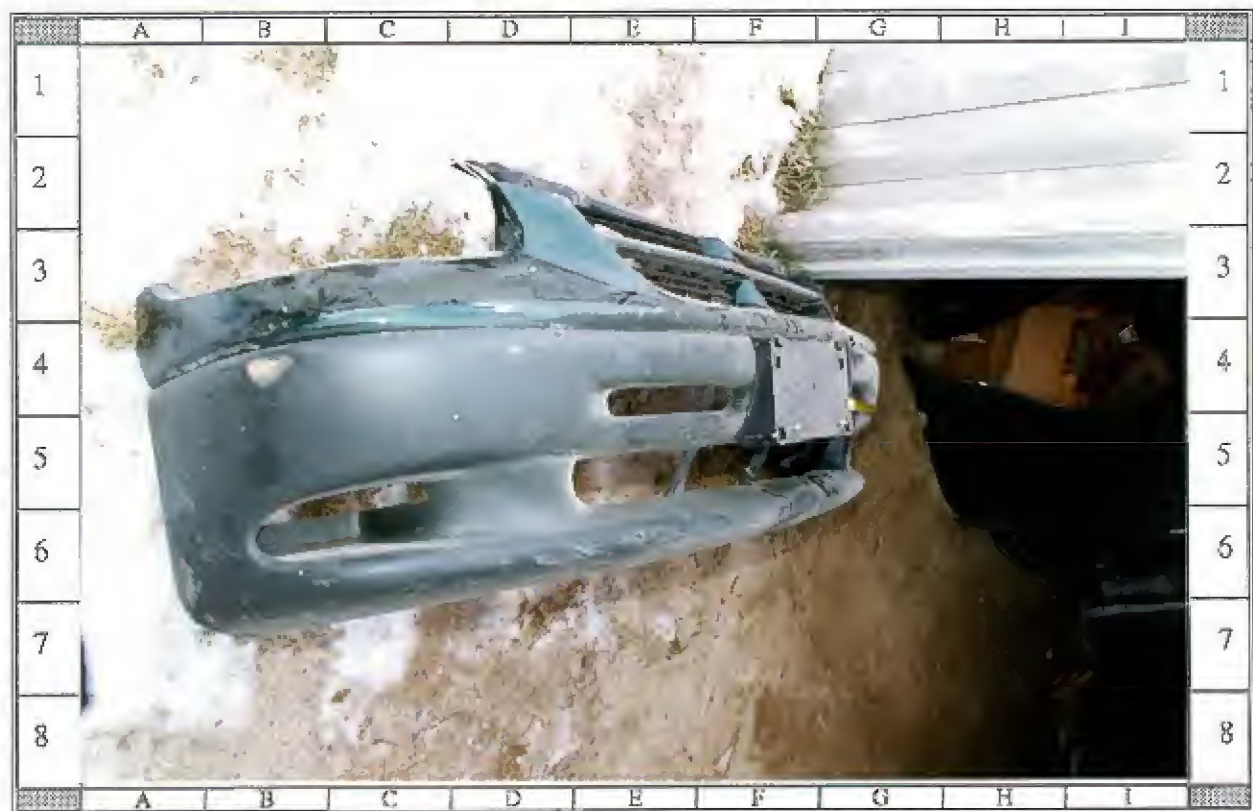


# 14 -- Damage to Case Vehicle's removed front bumper from left; NOTE: direct damage starts at left corner and goes three-fourths of the way to right corner





# 15 -- Damage to Case Vehicle's removed front bumper from center showing primary area of direct damage to left half of bumper (cells D4--H6)



# 16 -- Damage to Case Vehicle's removed front bumper from right showing that right bumper corner has no direct damage; NOTE: photo is sideways





# 17 -- Case Vehicle's removed bumper reinforcement bar showing that direct damage is primarily to left half (cells D4--H5); NOTE: photo is sideways



# 18 -- Case Vehicle's damaged left quarter panel from left front showing minimal sideslap crush from impact with Vehicle #2's left front bumper corner





# 19 -- Close-up of sideslap damage to Case Vehicle's left quarter panel from left;  
NOTE: white cross represents body shops markings



# 20 -- Case Vehicle's damaged left quarter panel from left rear





# 21 -- Case Vehicle's undamaged back plane



# 22 -- Case Vehicle's undamaged right side viewed from approximately 45 degrees right of back





# 23 -- Case Vehicle's driver seating area viewed from left showing dash, steering wheel, and removed air bag module; NOTE: deployed right front air bag



# 24 -- Case Vehicle's noncontacted dash and knee bolster; NOTE: contact (green dot) to right underside of steering column (cell G4)





# 25 -- Case Vehicle's driver seating area, steering column, left and center dash and center console viewed from right rear; NOTE: removed driver's air bag



# 26 -- Case Vehicle's undeformed steering wheel rim; NOTE: no evidence of contact to driver's door or A-pillar





# 27 -- Case Vehicle's contacted (green dot) driver steering column and noncontacted knee bolster, transmission selector lever, and center console



# 28 -- Case Vehicle's removed driver air bag with makeup transfer from driver below and to the right of yellow tape (cells D4-E4)



# 29 -- Close-up of makeup transfer (cells D3--E4) to Case Vehicle's removed driver air bag



# 30 -- Case Vehicle's removed driver air bag and top cover flap; NOTE: no evidence of contact found





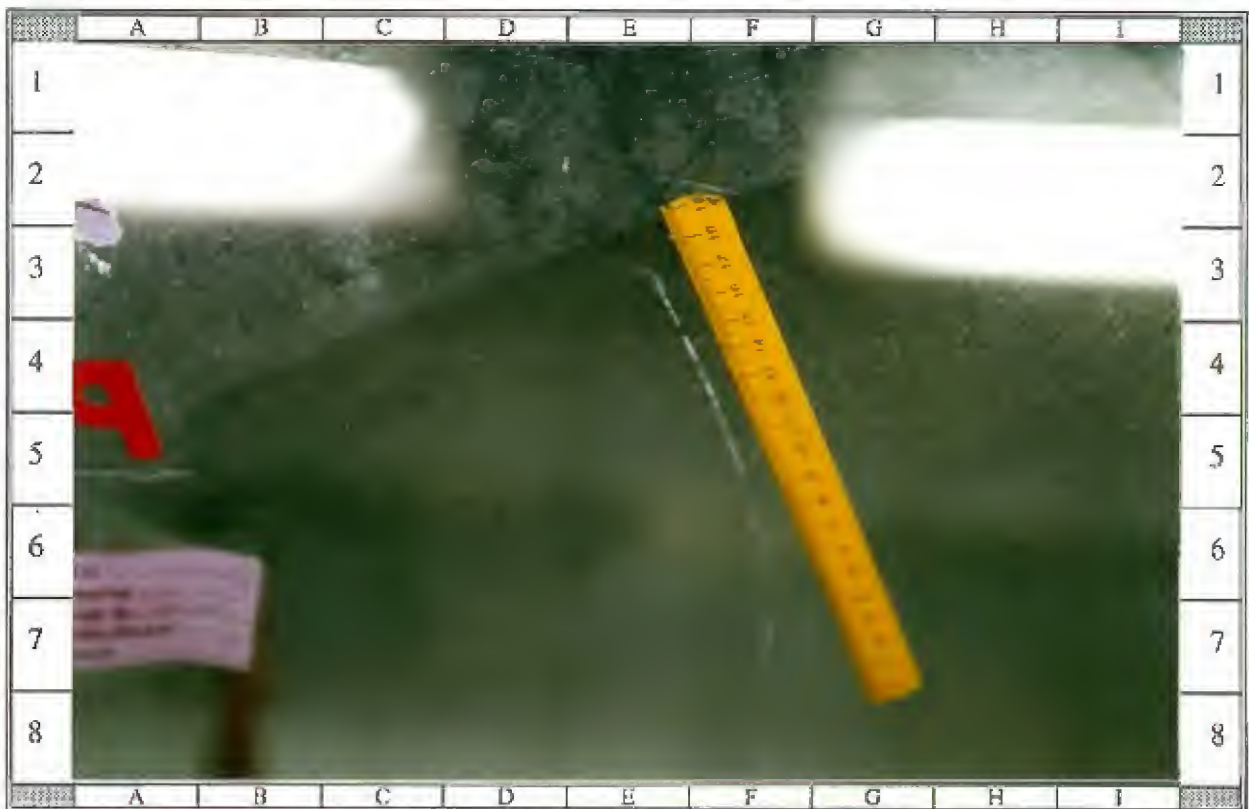
# 31 -- Backside of Case Vehicle's removed driver air bag and bottom cover flap;  
NOTE: no evidence of contact found



# 32 -- Case Vehicle's center dash and console area, windshield, rear view mirror,  
and roof console; NOTE: contact evidence to windshield

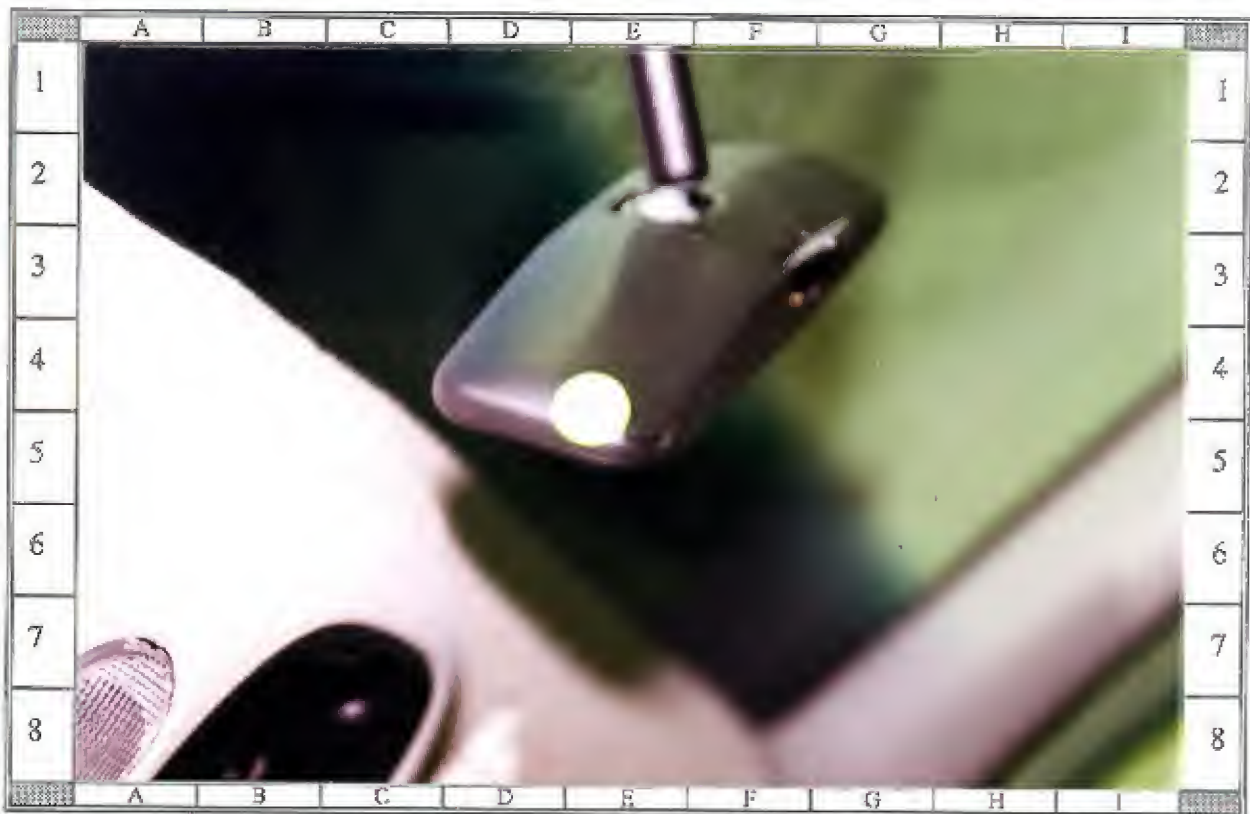


# 33 -- Case Vehicle's right windshield and windshield mounted rearview mirror showing evidence of contact; NOTE: contacts not occupant related



# 34 -- Close-up of contact (scratch mark) to right windshield most likely from broken piece of child seat; see photograph #52





# 35 -- Close-up of contact to back right corner of Case Vehicle's rearview mirror most likely from right front air bag; NOTE: roof console in background



# 36 -- Case Vehicle's warning statement located on underside of right front sunvisor; statement warns against use of rear facing child seats at this position

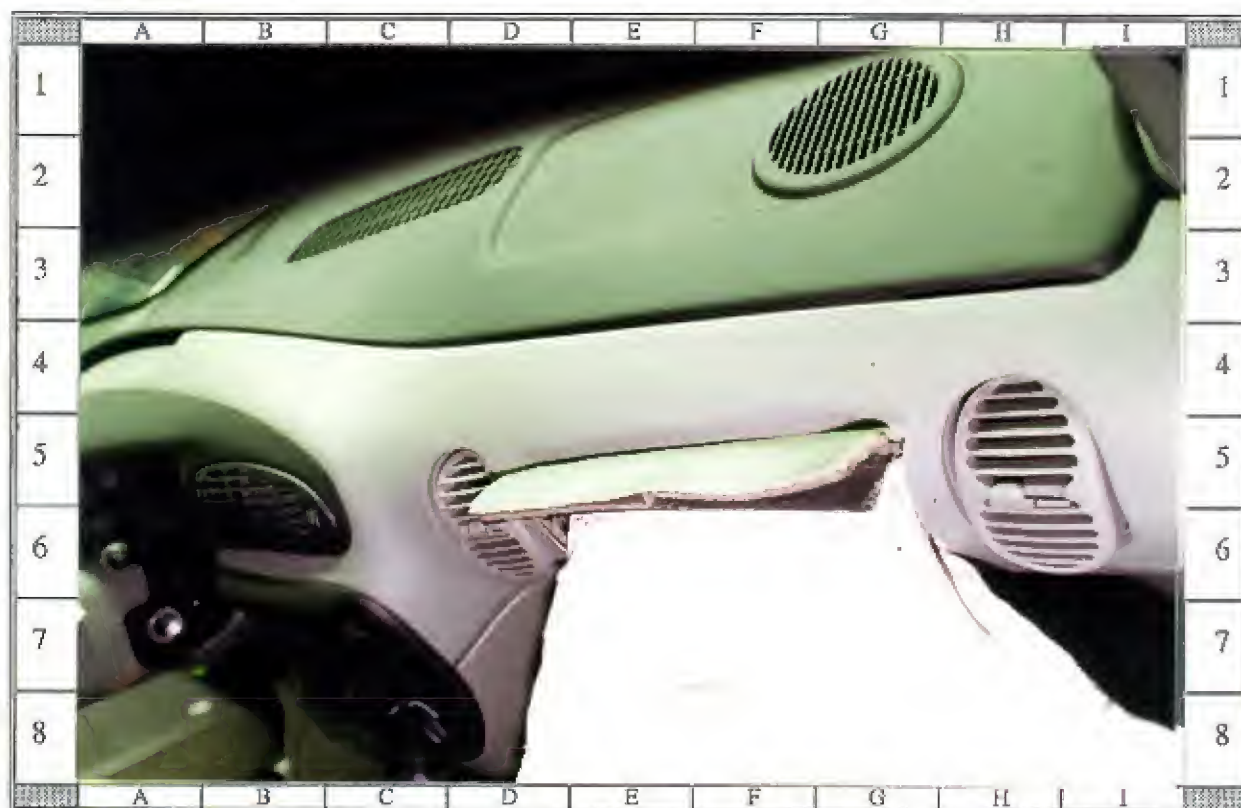


# 37 -- Case Vehicle's right front seating area and center console showing deployed right front air bag; NOTE: no evidence of contact found



# 38 -- Close-up of Case Vehicle's deployed right front air bag showing black scuff (cell E4) which most likely came from bottom cover flap during deployment





# 39 -- Case Vehicle's right dash and top cover flap from right front air bag; NOTE: no evidence of contact found



# 40 -- Case Vehicle's glovebox and bottom cover flap from right front air bag; NOTE: no evidence of contact found





# 41 -- Case Vehicle's front right seating area with child seat in original position showing close proximity to deployed right front air bag from left



# 42 -- Case Vehicle's front right seating area with child seat in original position showing close proximity of deployed right front air bag from right





# 43 -- Case Vehicle's right front seating area showing deployed air bag extended rearward onto child seat from left; NOTE: broken child seat (cell E4--E5)



# 44 -- Case Vehicle's front right seating area showing deployed air bag extended rearward onto child seat viewed from outside right front door





# 45: Overhead right view of Case Vehicle's child seat in it's original position with 3-point belt buckled; NOTE: child seat equipped with harness and shield



# 46: Frontal view of Case Vehicle's removed Fisher-Price child safety seat used in crash; NOTE: seat equipped with harness and shield





# 47: Undamaged left side of Case Vehicle's removed Fisher-Price child safety seat used in crash; NOTE: during crash this side was next to right front door



# 48: Rear view of Case Vehicle's removed Fisher-Price child safety seat used in crash; NOTE: plastic broken in upper right rear corner of seat (cells B2--C2)





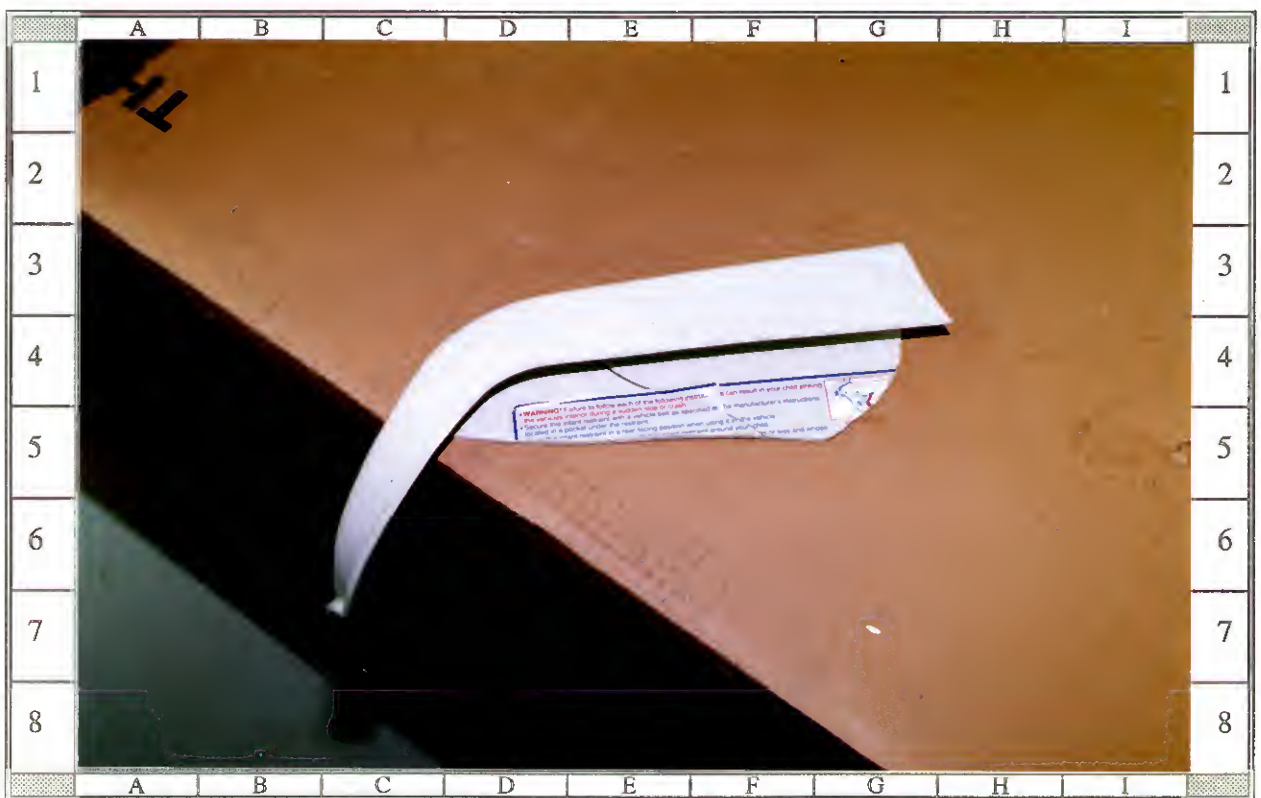
# 49: Rear right view of cracked and broken area of Case Vehicle's removed Fisher-Price child safety seat used by right front occupant in crash



# 50: Case Vehicle's removed Fisher-Price child safety seat showing a broken piece of seat held near its original place viewed from ~ 45 degrees right of rear



# 51: Right overhead view of broken and cracked area on Case Vehicle's removed Fisher-Price child safety seat used in crash by right front occupant



# 52: Broken plastic from Case Vehicle's removed Fisher-Price child safety seat;  
NOTE: piece shown in Photo #50 above is included here (cells C4--F5)





# 53 -- Case Vehicle's second seating area; NOTE: adjustable head restraints and shoulder belt anchorage (on C-pillar) and open left rear door



# 54 -- Case Vehicle's third seating area; NOTE: adjustable head restraints and available three-point seatbelts at outboard positions





# 55 -- Frontal view of Vehicle #2 showing induced damage to grille, left front bumper corner, and left headlight (yellow tape area)



# 56 -- Front left close-up of Vehicle #2's direct and induced damage to left front bumper corner and headlight area which occurred during sideslap (2nd event)





# 57 -- Close-up from left of Vehicle #2's direct and induced damage to left front bumper corner and headlight area which occurred during sideslap (2nd event)



# 58 -- Vehicle #2 viewed from ~45 degrees left of front showing sideslap damage to left front bumper corner and initial contact damage to left rear





# 59 -- Vehicle #2's left side damage viewed from ~30 degrees left of front showing direct and induced damage to left rear door and left quarter panel



# 60 -- Vehicle #2's left side damage viewed from ~45 degrees left of front showing direct and induced damage to left rear door and left quarter panel



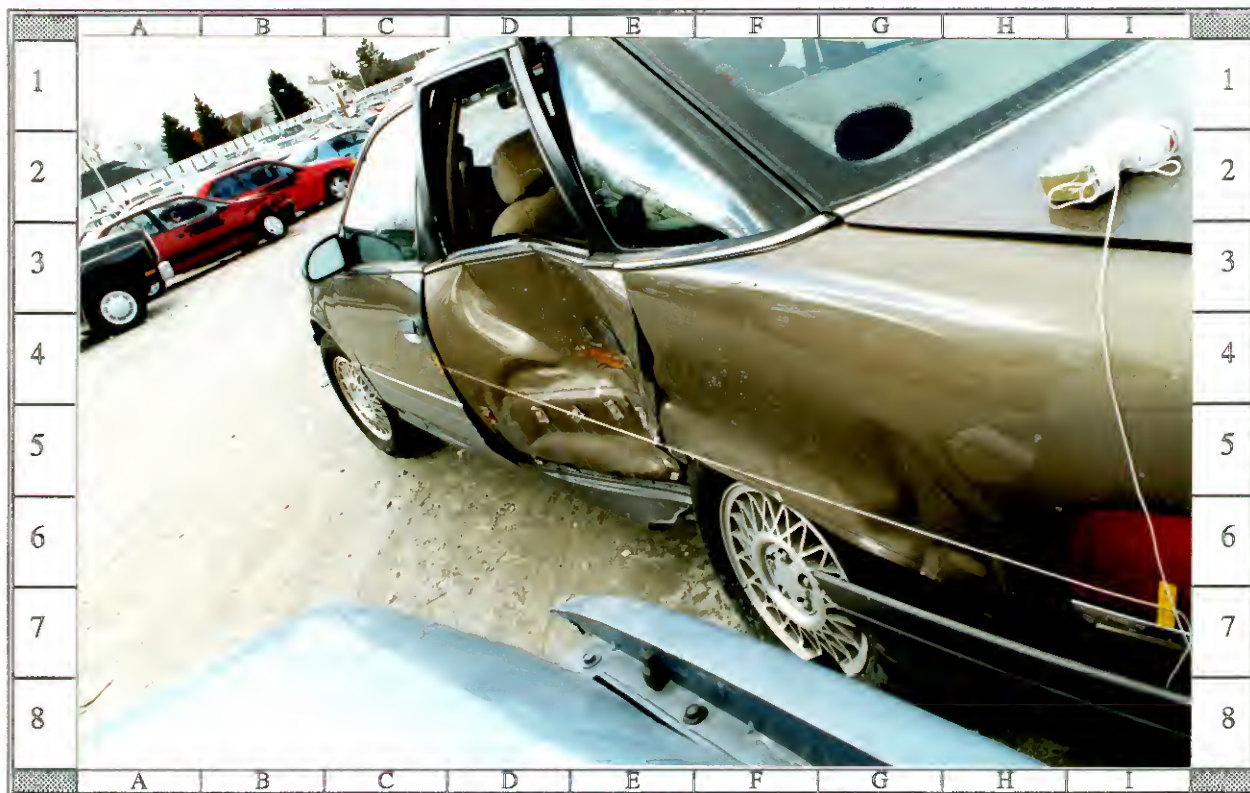


# 61 -- Vehicle #2's direct left side damage viewed from left showing damage to left rear door and quarter panel; NOTE: disintegrated left rear window



# 62 -- Vehicle #2's direct left side damage viewed from ~ 60 degrees left of back showing damage to left rear door and left quarter panel





# 63 -- Vehicle #2's left side damage viewed from ~20 degrees left of back showing direct and induced damage to left rear door and left quarter panel



# 64 -- Overhead back reference line view of Vehicle #2's left side damage; NOTE: intrusion through left rear passenger door





# 65 -- Vehicle #2's back plane showing minor induced damage to left rear bumper corner and trunk lid



# 66 -- Vehicle #2's back and right sides viewed from ~30 degrees right of back showing induced damage to trunk lid and undamaged right side





# 67 -- Vehicle #2's front and right side viewed from ~45 degrees right of front showing undamaged right side and induced damage to front grille and bumper



# 68 -- Vehicle #2's frontal damage viewed from ~75 degrees right of front showing induced damage to center of grille (cells E5--F5)





# 69 -- Vehicle #2's driver seating area showing interior door surface, steering wheel, and dash; NOTE: no evidence of contact to door surface, wheel, or dash



# 70 -- Close-up of interior surface of Vehicle #2's driver door showing no evidence of contact





# 71 -- Close-up of Vehicle #2's steering wheel and column, instrument panel, and left lower dash showing no contact evidence



# 72 -- Vehicle #2's driver seating area viewed from rear center position showing no evidence of contact





# 73 -- Vehicle #2's center and right dash, windshield, rear view mirror, and right A-pillar viewed from rear center position showing no evidence of contact



# 74 -- Vehicle #2's dash, front seating area, and left A-pillar and B-pillars showing no evidence of contact





# 75 -- Vehicle #2's left rear door showing intrusion from impact with Case Vehicle;  
NOTE: adjustable front head restraints and fixed B-pillar anchorages



# 76 -- Vehicle #2's left rear seating area showing seat intrusion from left rear door;  
NOTE: fixed rear head restraints and 3-point belts at outboard positions